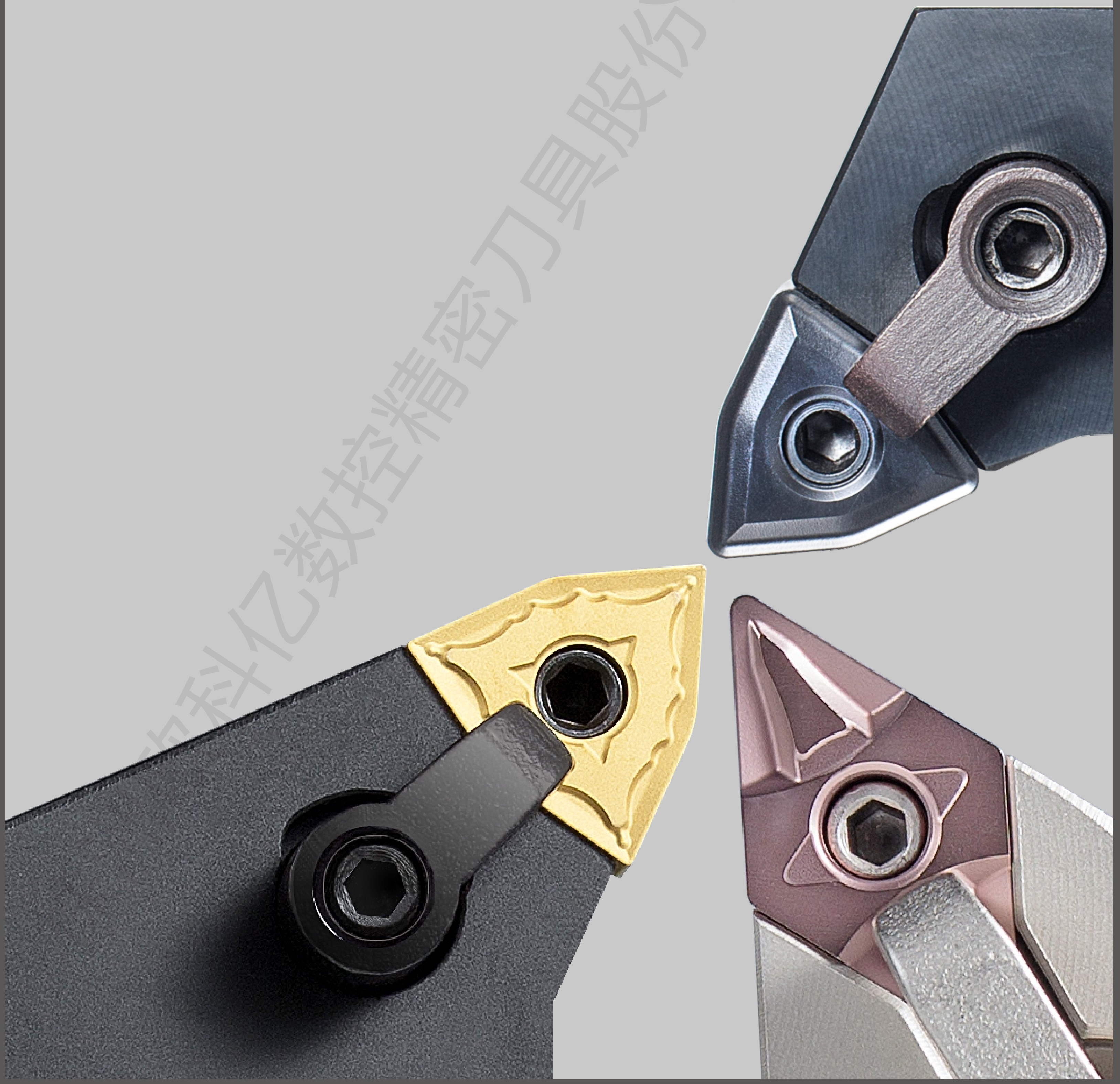
OKE

切削刀具产品综合目录

Cutting Tools Catalog

2019



OKE

切削刀具产品综合目录

Cutting Tools Catalog

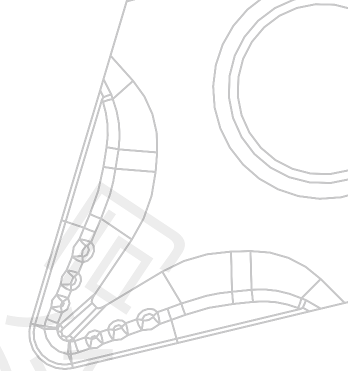
2019

OKE

Obligation Keeps Excellence

责任铸就卓越

● 地址（总　部）：湖南省株洲市炎陵县中小企业创业园创业路（P.C.412500）
（分公司）：湖南省株洲市芦淞区创业四路8号（P.C.412008）
Add（Head Office）：Chuangye Rd,Chuangye Park for SMEs,Yanling County,Zhuzhou,Hunan,China.
（Branch Office）：#8,Chuangye Rd,Lusong area,Zhuzhou,Hunan,China.
● 电话(Tel)：0731-22673810 22673893　0086-731-22673895（English speaking）　● 传真(Fax)：0731-22673970
● 邮箱(E-mail)：info@oke-carbide.com　● 网 址(Web)：www.oke-carbide.com



目录 切削刀具

CUTTING TOOLS

株洲欧科亿数控精密刀具股份有限公司

About us

关于OKE

株洲欧科亿数控精密刀具股份有限公司（统一社会信用代码：914302001843451689）成立于1996年1月23日，于2017年7月整体改制为股份公司，注册资金7,500万元，是一家国内领先、具有较强自主研发和创新能力、专业从事硬质合金切削刀片研发、生产、销售的硬质合金深加工的民营高新技术企业。

公司在株洲市芦淞区和炎陵县设有两大生产基地，总占地约240亩，已建成近40,000m²的现代化标准厂房，拥有3,000多台（套）国际一流水准的加工制造装备及研发、检测设备，目前已具备年产1,500吨小型精密切削刀片和4,000万片高精数控刀片的生产能力。

公司在册员工680余人，其中专门从事技术研发的人员80多人，组建了湖南省认定企业技术中心，在高精数控刀具基体材质与涂层工艺设计、刀片基体成形关键技术等方面的研究取得了数十项拥有自主知识产权的科研成果，获得正式授权的各类专利达六十余件（含8件发明专利），技术水平处于国内行业领先水平。

公司始终坚持“以市场为龙头，以创新为核心，以产品为支撑，以满足客户需求为导向”的质量方针，通过了质量管理体系认证，紧密围绕客户需求，努力加大技术服务力度，不断提升市场保障能力，着力构建多层次、多渠道的全球营销网络。主导产品 “高精数控刀片（刀具）”的销量已抢占国内第一梯队，OKE已成功地跻身国产品牌前三甲；另一传统优势产品“小型精密切削刀片”凭借优异的性能，在国内市场大量替代进口产品，已成为行业细分领域的引领者。

公司始终秉承“责任铸就卓越”的经营理念，紧跟中国高端制造产业导向，专注于高精数控刀具国产化和进口替代，全力打造成为国际知名的中国智能数控刀具优势企业。

Established in Jan. 23,1996, OKE Precision Cutting Tools Co., Ltd.(Hereinafter referred to as "OKE"), restructured to a joint stock company in July 2017 with the registered capital of 75 million CNY, which is a domestic leading research and innovation high-tech private enterprise with professional R&D, production and sales of High precision cutting inserts(tools).

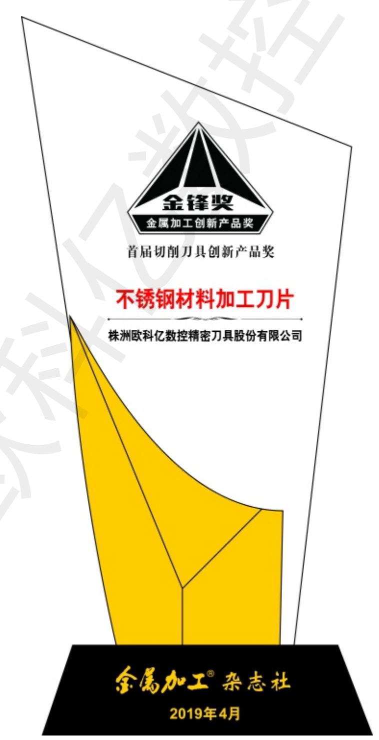
OKE located in Yanling County, built two big production bases in Yanling county and Lusong area in Zhuzhou city which cover an area of more than160,000 (39.5 acres), included 40,000 modern standard workshop, over 3000 pcs (sets) international first-class level of processing and manufacturing facilities, research & development and testing equipment. At present, OKE has the annual production capacity of 1,500 tons of small precision cutting tips and 40 million pcs of high-precision CNC inserts.

Now, OKE has more than 680 employees, include over 80 technology research and development personnel, set up the enterprise technology center recognized by Hunan province, has achieved more than 10 research achievements in High precision inserts tools substrate material, coating technique, forming and other aspects. OKE already get over 60 patents, include 8 invent patents, reach the leading technology level in domestic industry.

OKE always adhere to the quality policy "market-oriented, focus innovation, product support, to meet customer demand as the guidance", has passed the certification of quality management system, focusing on the demands of customers, to increase the intensity of technical services, enhance market support capability, strive to build a multi-level and multi-channel global marketing network. The main product “ High precision cutting CNC insert(tool) sales ranks the first class in China. Now is the top 3 carbide insert Chinese brand. Another traditional product “small precision cutting tips(carbide saw tips) become the leading product in China with the excellent property and replaced most of the imported products in the saw blade cutting industry.

OKE insist its business conception“Obligation Keeps Excellence”, following Chinese high-end manufacturing industry guide, focusing on high precision CNC tools localization and import substitution, strive to create an international famous Chinese industrial intelligent CNC cutting tools enterprise.

专注·专业·专家



Development
发展历程

1996-01

株洲精诚实业
有限公司成立；
占地8.5亩；

Established Zhuzhou Jingcheng Industrial Co., Ltd. covered area of 5660 square meters;

2000-09

公司
建立合金二厂，
占地12.6亩；

Established our 2nd factory, covered area of 8400 square meters;

2003-06

公司通过
ISO9001：2000
质量管理体系认证；

Passed ISO9001:2000 quality management system certification;

2010-01

公司建立合金三厂，
共占地41亩；

更名株洲欧科亿
硬质合金有限公司

公司通过
ISO9001：2008
质量管理体系认证；

Established our 3rd factory, covered area of 27000 square meters;

Zhuzhou Jingcheng industrial Co.,LTD. was named to OKE Carbide Co.,Ltd;

Passed ISO9001:2008 quality management system certification;

2011-01

公司扩展
合金三厂场地，
建立数控刀片生产线；

Expanded our 3rd factory building area; Established an indexable inserts production line;

2012-07

公司
与湖南工业大学建成
产、学、研基地；

Set up production ,study and research base with Hunan University of Technology;

2017-08

2017年8月，
公司更名为：
株洲欧科亿数控精密刀具
股份有限公司

The company name is o fficially renamed OKE Precision Cutting Tools Co., Ltd.

2018-06

成立全资子公司：
炎陵欧科亿数控精密刀具
有限公司

Establish wholly owed subsidiary company:Yanling OKE Precision Cutting Tools Co., Ltd.

Culture
企业文化

公司以“军队、学校、家庭、品牌”作为企业文化，对员工遵循“军队”“学校”“家庭”“品牌”式管理模式。军队般的纪律与执行力，学校般的学习氛围，家庭般的温暖，让每一位员工拥有宽松和谐的发展空间，快乐、健康的工作和生活；坚持“以人为本”，不断提升企业文化建设水平。以特种部队步调一致、雷厉风行的纪律严格要求，将整个公司建成为一个高效率的组织。对员工进行各种技能及专业知识培训，实现员工跟随公司不断成长。公司为员工提供多项福利，鼓励员工之间互相团结，让每一位员工充满归属感，再配合激励机制，力将OKE打造成为员工们自由施展的舞台。让每个员工都有施展自己才能的机会和平台。员工良好的执行力使企业管理制度得到高效执行，个人价值在企业整体发展中得到实现。

OKE take “army, school, family, brand” as the enterprise culture. Every one here enjoy the school study atmosphere, family warmth, taking the strict discipline and good execution, work and live happily and healthfully, make OKE to be a high efficient company. OKE provide all kinds of skills and processional knowledge training and offers many benefits for the employees. Every employees grow up with the company. Good execution makes the company to be efficient and personal value is fully realized in the overall development of the enterprise.

OKE

Obligation Keeps Excellence

Obligation Keeps Excellence
责任铸就卓越

OKE以维护客户利益为已任，以提供优质、高效率的产品为追求，以快速、准确的服务为理念，以满足客户需求为导向，锐意进取，高度的责任感，为用户提供最优的产品及服务。

we maintain the interests for our customers as our mission; we provide high quality and efficient products as our pursuit, quick and accurate service as our idea to meet customer demand as the guidance in order to bring the best products and services to our customs through determined progression, full enthusiasm and high sense of responsibility.

R&D Centre
研发中心

一、与高校建立战略合作关系

公司始终重视产学研结合，积极搭建外部合作创新平台，与湖南工业大学等相关领域高等院校及科研院所建立了长期良好的合作关系，共同进行新技术攻关、新材料研究、新产品开发以及技术人才的培养，形成了完整的“开发-试制-产品-商品”产学研合作系统。

1.Establish strategic cooperation with Hunan University of Technology

Combine production, study and research, create an innovation platform with external cooperation, build long term cooperation with Hunan University of Technology and research institutes in related fields to research new technology, new material, new products and train technical personnel, which formed an integrated “development-trial manufacture-product-commodity” system.

二、研发团队

公司拥有一支由国内行业专家、高级工程师、研究生组成的强大研发团队，装备国际一流的研发设备，具备业内一流的研发能力，研发团队秉承“贴近市场做开发”的宗旨，不断更新升级改善产品性能，研发出符合市场和客户需求的新产品。

2. Professional R&D team

OKE owned by a strong R&D team of domestic industry experts, senior engineer, graduate student, equipped with the international first rate research and development equipment, and domestic first rate R&D ability, and the team adhering to the principle of close to the market development, constantly update to improve product performance, develop in line with market and customer demand of our new products.

▲ 切削实验室 Cutting Lab

Analyzing and Inspecting Centre
分析检测中心

硬质合金、涂层常规物理性能、组织结构，化学元素定量的检测设备、方法一应俱全，能多维度对硬质合金性能、组织结构进行精确表征，为研发提供有效的数据支撑（相关设备：COM仪、HC计，密度天平、金相显微镜及其相应的金相定量分析软件、洛维氏硬度计（硬度和断裂韧性）、冲击韧性机、抗弯强度机等）。

Carbide and coating conventional physical properties, structure, chemical element quantitative inspection equipment and methods are all available. To provide effective data support(Com instrument, HC meter, density balance, metallographic microscope and its corresponding quantitative metallographic analysis software, HRA/HV hardness tester (hardness and fracture toughness), impact toughness machine, bending strength machine).

▲ 扫描电镜
Scanning Electron Microscope

▲ 分析检测中心 Analytic Center

Die and Mould Workshop

模具制造中心

► 配备当今国际顶尖设备,拥有现代化的标准厂房与恒温恒湿车间，保证机床的稳定性。
International advanced wire cutting machine to ensure the high accuracy of the moulds and products.

► 瑞士HUASER坐标磨床、瑞士GF慢走丝、瑞士GF火花机、德国ZEISS三坐标检测仪、德国keen加工中心，瑞典3R夹具体系，模具制造精度控制在±0.003MM。
Swiss HUASER coordinate grinder;Swiss GF Low Speed Wire Cutting; Swiss GF spark machine; German ZEISS coordinate detector; German Keen cutting center; Sweden 3R fixture system; Mold manufacturing accuracy is controlled at plus or minus 0.003mm.

► 模具库储备万套以上模具，可以满足不同需求。
More than ten thousand sets of moulds in our stock can meet customers different demands.

► 可根据客户量身定做3R模具。
3R mould can be customized according to customer demand.

▲ 坐标磨床 JIG Grinding

▲ 三坐标 Trilinear Coordinates Measuring Instrument

▲ 电火花 Electric Discharge Machining (edm)

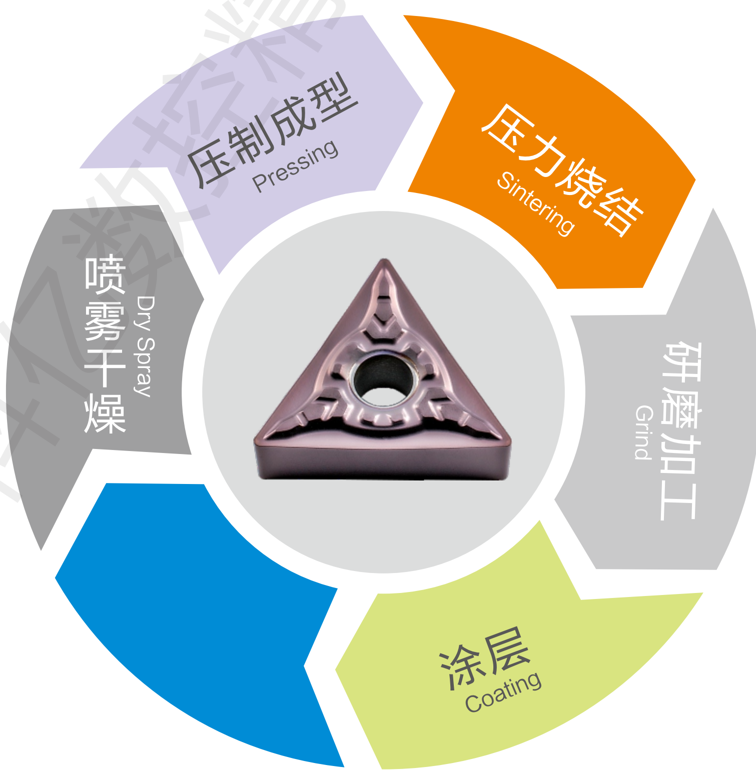
▲ 慢走丝 Slow Wire Cutting Machine

Equipment

研发、检测、生产设备

目前，公司通过引进德国、瑞士、美国、丹麦等国家的先进生产、检测设备和软件及当代国际先进生产技术，不断提高和完善高性能精密硬质合金刀片的设计能力和制造检测水平。截至目前，共引进国际先进高性能精密硬质合金切削刀片生产设备、检测设备及软件系统等全套流程装备，包括喷雾干燥塔、高精密全自动压力机，多气氛压力烧结炉，高精密全自动磨床，全自动清洗机，全自动钝化机，CVD涂层炉、磁控溅射PVD涂层炉、多弧离子镀PVD涂层炉、高分辨场发射扫描电子显微镜等，生产线及工艺技术水平领先于国内同行业，达到世界先进水平。

Introduction of advanced production and testing equipment and software from Germany, Switzerland, the United States, Denmark and other countries, as well as modern international advanced production technology, the company continuously improves the design ability and manufacturing testing level of high-performance precision carbide insert. At present, more than 100pcs(sets) international advanced equipment including spray drying tower, high precision automatic press, atmosphere pressure sintering furnace, high precision automatic grinding machine, fully automatic washing machine, automatic passivation machine, CVD coating furnace, magnetron sputtering PVD coating furnace, Multi-arc ion plating PVD coating furnace, high resolution field emission scanning electron microscope, etc., the leading production line and process technology in the domestic industry, reach the world advanced level.



CVD 涂层炉CVD coating

PVD 涂层炉 PVD Coating

周边磨床 Peripheral Grinder

压机 Press Machine

Sales and services

市场网络

► 公司始终秉承“责任铸就卓越”的经营理念，依靠雄厚技术实力，一切以客户利益为上，为客户提高快速、准确的售前、售后服务和完整的工艺及刀具方案。

“Obligation Keeps Excellent ”has always been OKE company slogan for management，relying on the powerful technology strength，clients interest always come first，we offer immediate and accurate services to every clients before sales and after sales，as well as machining process and tools selection.

► 一对一的营销服务，与客户进行全方位的深度沟通，获取需求信息；为客户详细推介产品，认真解答各种技术咨询；专业技术人员指导安装调试；全年365天无休服务，服务站覆盖全国。

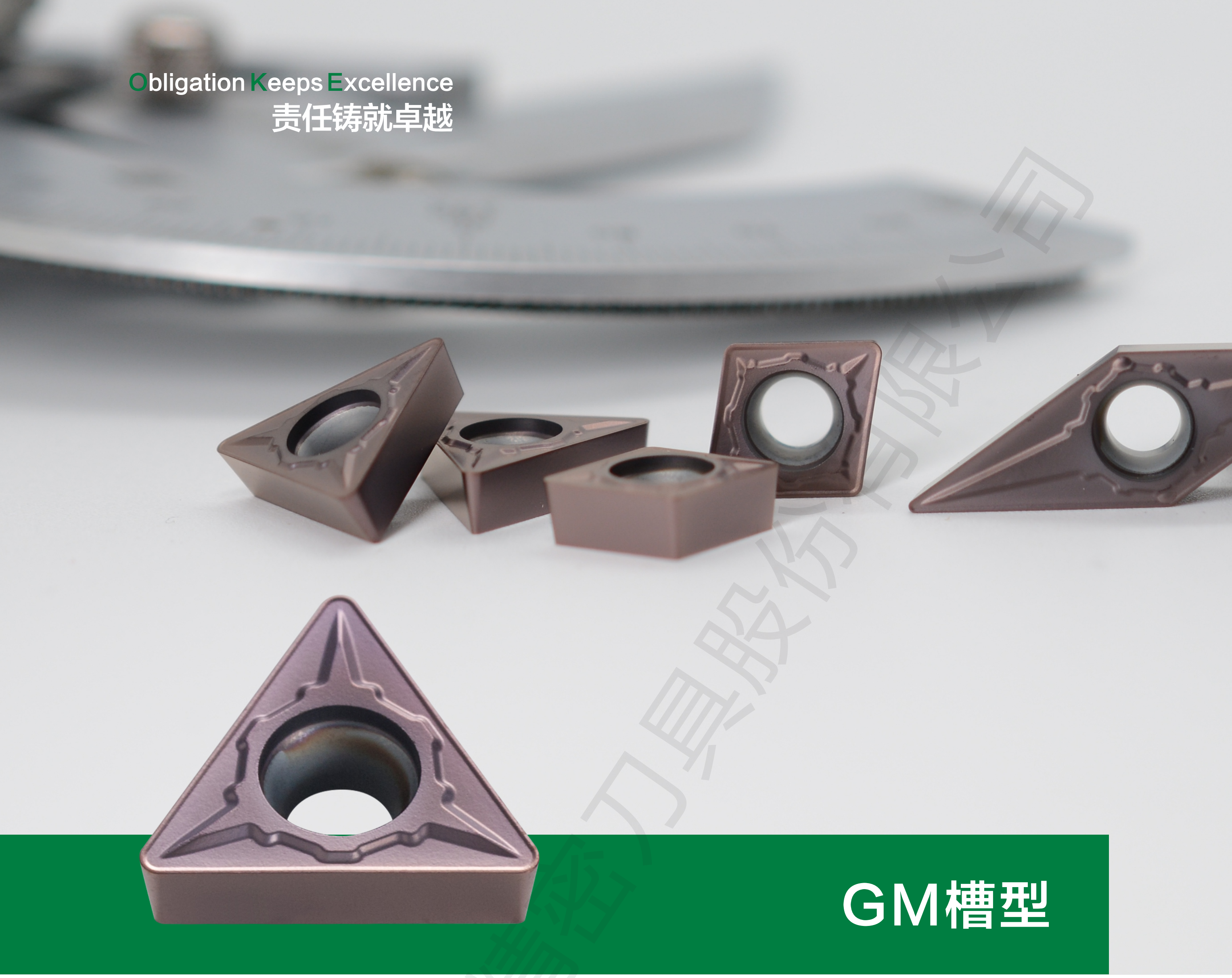
One-to-one marketing service，we get every clients needs through deep and all- around communications.We offer every clients specific products introduction，and answer different technical questions.

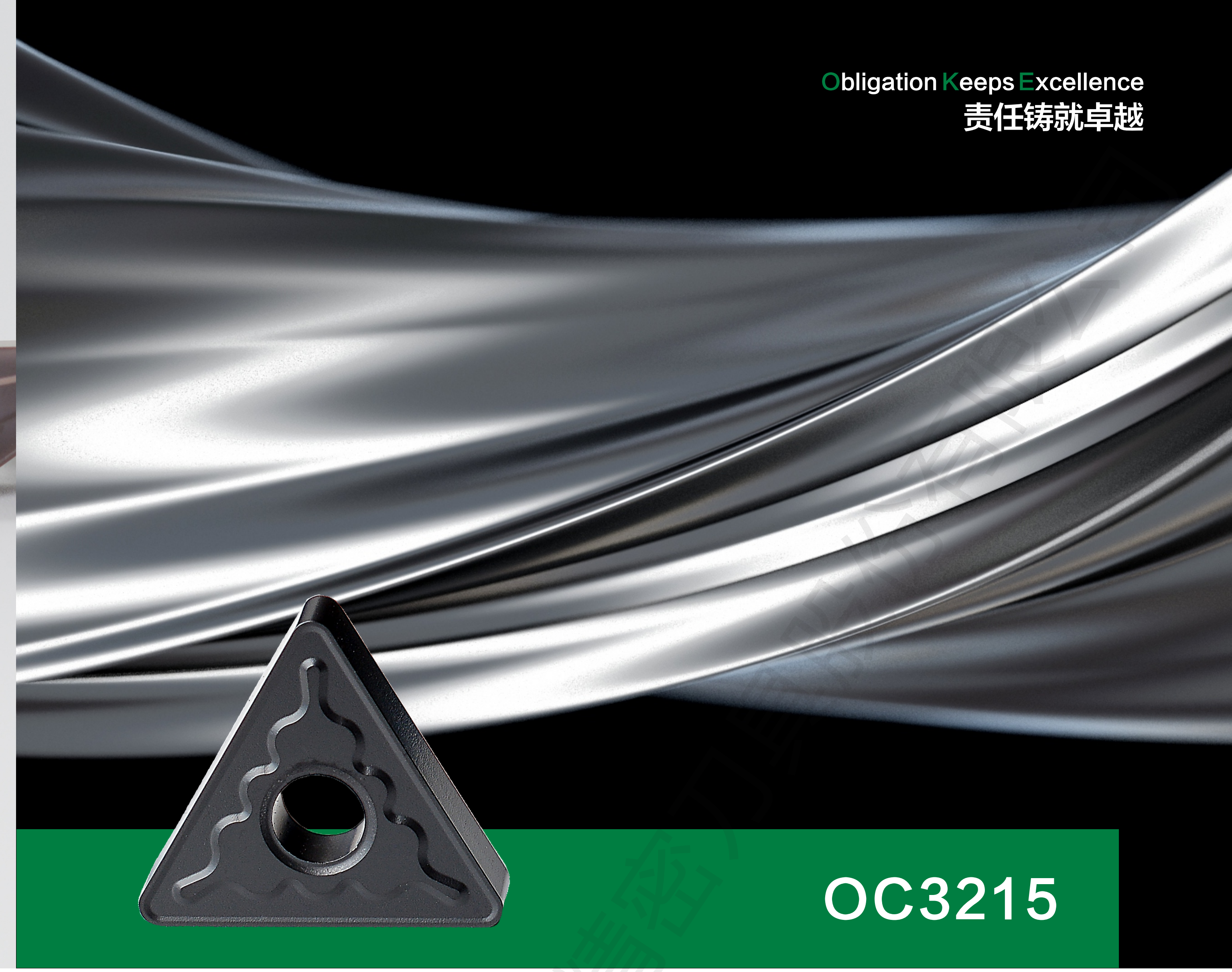
OKE Company of "quality first, credit first" purpose, with complete pre-sale and after-sales service system.Our engineers will give every clients a guidance for installation and debugging. our service stations cover all the world.

► 国外销售网点
亚洲：日本、韩国、印度、越南、印度尼西亚、马来西亚、伊朗、巴基斯坦、约旦
欧洲：德国、意大利、俄罗斯、乌克兰、英国、法国、西班牙、葡萄牙、
美洲：加拿大、美国、墨西哥、阿根廷、委内瑞拉、巴西、秘鲁

International sales network ：
Asia：Japan，Korea，India，Vietnam,Indonesia，Malaysia，Iran，Pakistan，Jordan.
Europe：Germany，Italy，Russia，Ukraine，England，France，Spain，Portugal.
North America and South America：Canada，America，Mexico，Argentina，Venezuela、Brazil、Peru.

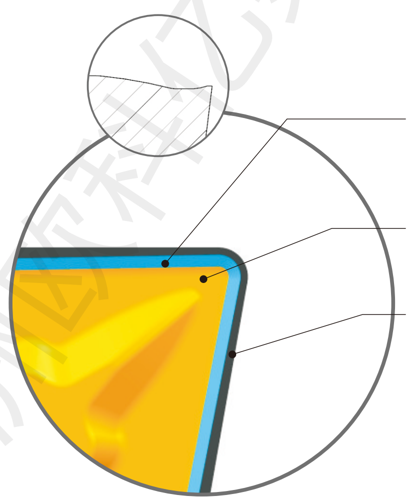
株洲欧科亿数控精密刀具股份有限公司





新一代
正刀片通用加工槽型

New Generation
Postive insert general chipbreaker



- ◆ 大前角设计，切削轻快，配合变化的刃宽，获得极好的通用性
  The large rake angle deisgn contribute to smooth and quick cutting, and coordinates with changing width of cutting edge. It gives very good universality.
- ◆ 排屑流畅的断屑槽，减小排屑阻力
  The smooth chip discharge channel reduces chip discharge resistance force.
- ◆ 变刃宽设计，保证刀尖锋利的同时，提高切削刃强度
  Changing width of cutting edge, gives sharp edge also guarantee the strength of cutting edges.

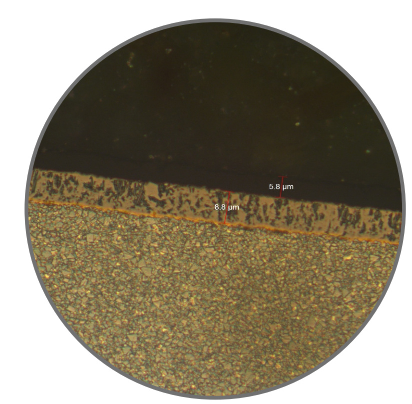
让铸铁加工
稳定而高效！

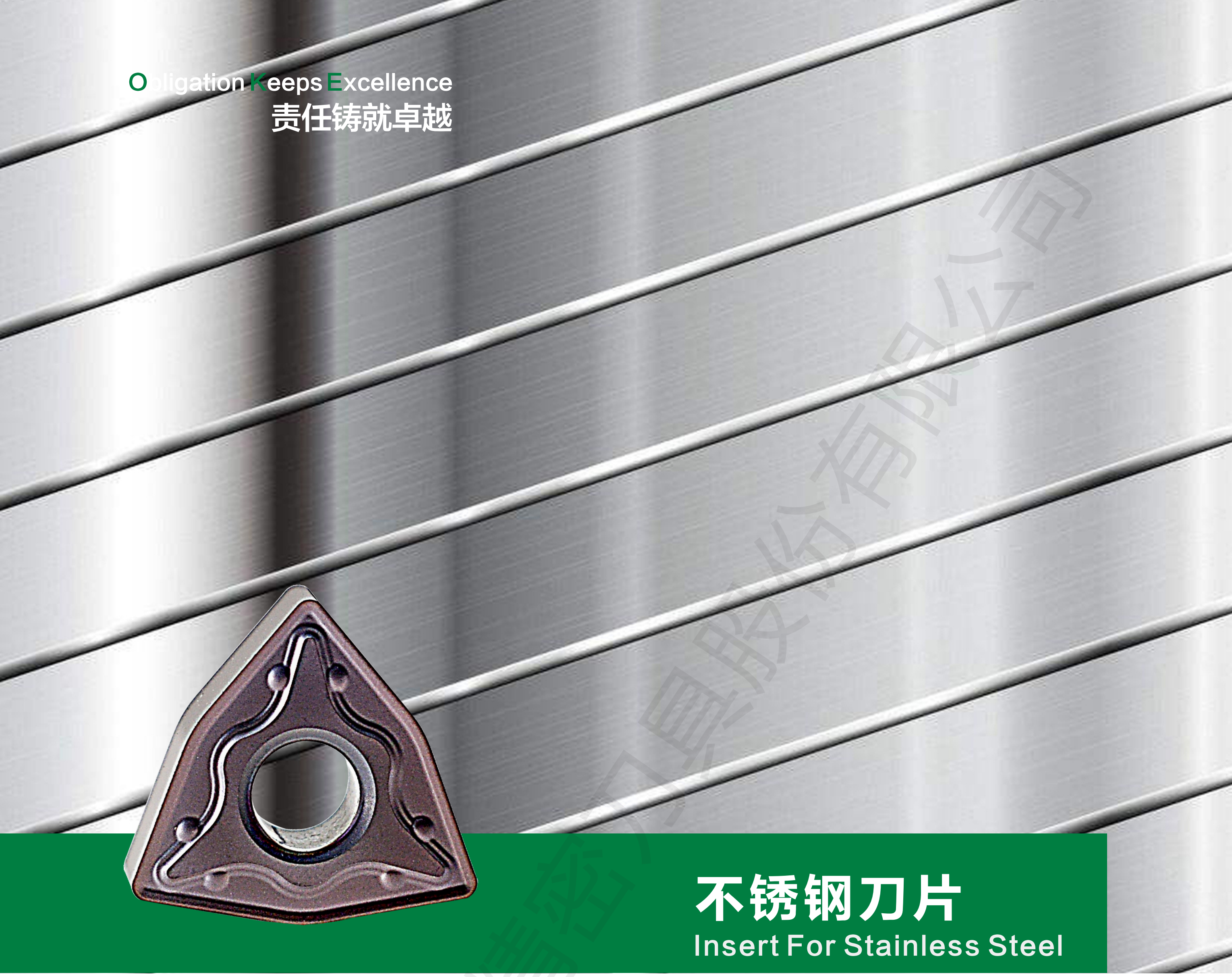
Making cast iron machining
stable and efficient

强韧型中粗颗粒硬质合金基体，CVD柱状强织构化MT-TiCN+α-Al_2O_3涂层，具有优异的膜基结合力。经涂层后处理，具有光滑的表面，降低了表面应力和切削阻力。适用于连续及轻断续工况下的铸铁材料中高速加工，通用性好。

The medium–coarse substrate has high strengthand toughness,columnar textured MT–TiCN anda–Al_2O_3 CVD coating has excellent adhesion between the coating and substrate.After coatingtreatment,optimized extremely smooth coatingsurface,reduce the surface stress and cuttingresistance.

Suitable for continue andslight interrupt cast ironcutting at medium to highvelocity, OC3215 has very good universality.





不锈钢刀片
Insert For Stainless Steel

精加工–MSF

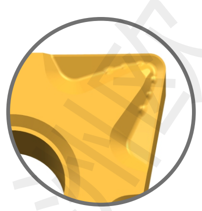
双前角三维槽型设计；
刃口锋利,切削力低；
有效解决了积屑瘤和加工硬化等加工难点；
刃倾角的设计,很好地控制了切屑流向 ，
获得高质量的加工表面；
适合不锈钢材料的精加工。

FINISHING
Three–dimension designed with double rake angle;
Sharp cutting edge and lower cutting resistance;
Efficiently solved build up edge, work hardening and other machining problems.
Cutting edge inclination designation is good to control chip flow direction and obtains excellent Surface quality.

半精加工–MF

独特的槽型设计；
兼顾了刀片刃口的锋利性和强度；
有效解决了不锈钢加工中断屑、切削温度高、粘刀、加工硬化等加工难点；
可以获得更高的加工效率；
适合不锈钢材料的半精加工

SEMI–FINISHING
Special chipbreaker design to keep both sharp cutting edge and increased blade intensity;
Efficiently solved break chip, ,high cutting temperature, sticking, work hardening and other machining problems.
MF has better efficiency than –MF.
Suitable for stainless steel semi–finishing cutting.



精加工–OMF

特殊前角和刃倾角设计；
刀片刃口锋利,切削阻力小；
可获得很好的表面质量；
适合于不锈钢材料的精加工。

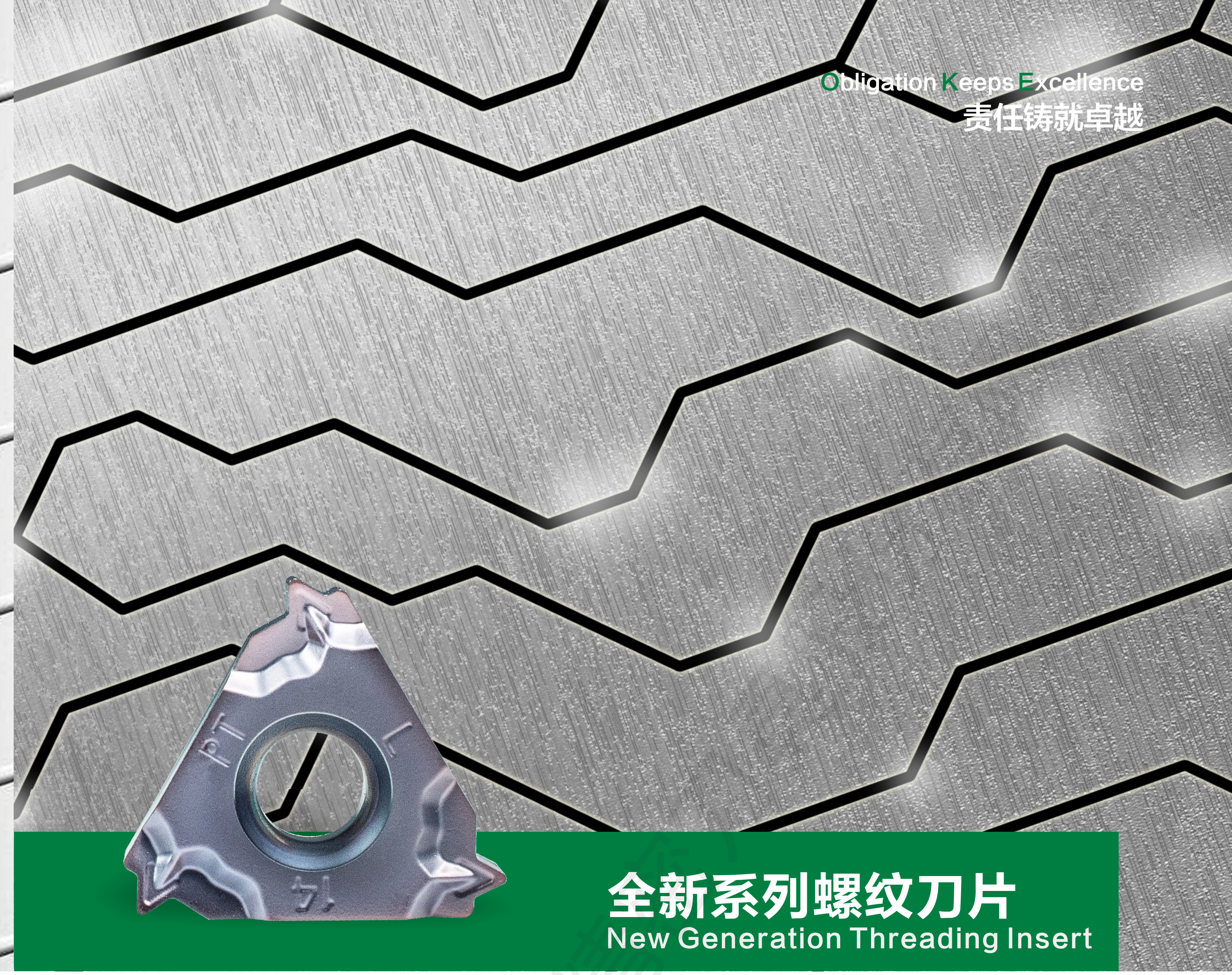
FNINSHING
Special designed rake angle and cutting edge inclination:
Sharp cutting edge, small cutting force;
Good machining surface quality;
Suitable for stainless steel finishing.

半精加工–OMM

刃口锋利并兼顾了一定的强度；
具有很好的抗冲击能力；
切削寿命长；
适用于不锈钢材料的半精加工。

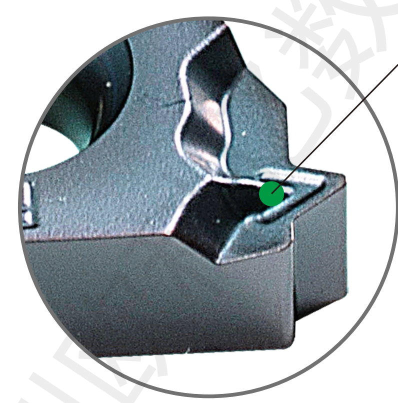
SEMI–FINISHING
Special chip breaker design to keep both sharp cutting edge and good impact resistance;
Good anti impact resistance;
Excellent tool life time;
Suitable for stainless steel semi–finishing.

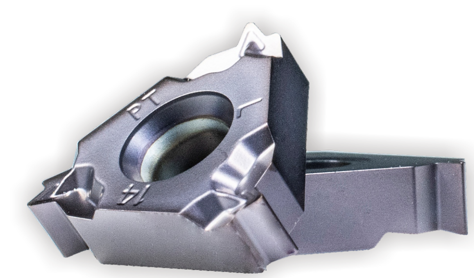
Obligation Keeps Excellence
责任铸就卓越



全新系列螺纹刀片
New Generation Threading Insert

合理的槽型设计保证了
加工中切削的有效排出，
加工表面光洁度高。
Reasonable chip breaker design ensures good surface quality





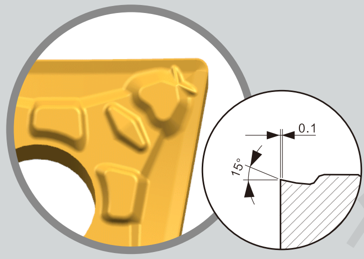
锋利刃口结构结合高韧性、高耐磨性、通用性强的硬质合金基体，
具有很好的刃口强度；
且与高耐磨性的涂层搭配，加工适用性强，通用性强。

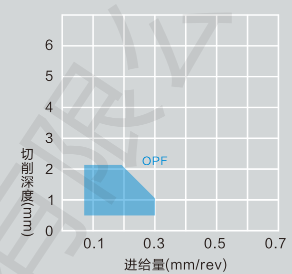
The sharp edge structure combines cemented carbide matrix with high toughness, wear resistance and versatility.It has good edge strength.
And with high wear resistance coating, It gives a great processing applicability and versatility are strong.

钢
Steel

精加工-OPF

钢类材料精加工槽型；
独特的槽型能有效控制切屑的卷曲和断屑；
刃口锋利，切削轻快；
可获得良好的表面质量。

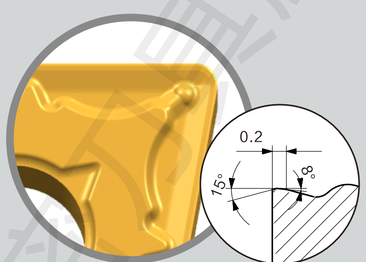


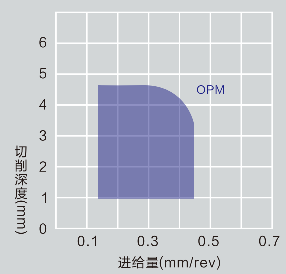


FINISHING
Finishing chipbreaker for steel machining;
Special designed for steel finishing;
Unique design efficiently controls the form of chip and breaks chip;
Sharp cutting edge, smooth cutting;
Excellent surface quality.

半精加工-OPM

钢类材料半精加工槽型；
负倒棱设计，增强刀片刃口强度和抗冲击性能；
双断屑台设计，扩大断屑范围。

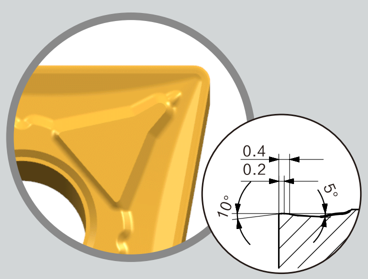


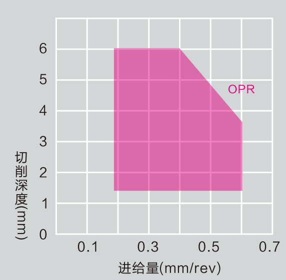


SEMI-FINISHING
Semi-finishing chipbreaker for steel machining.
Negative chamfer designation gives blade good strength;
Double chipbreaker lands, makes bigger chip control range.

粗加工-OPR

特殊的双前角和宽刃带及负倒棱三维断屑槽设计；
具有很好的刃口强度，延长切削寿命；
适用于钢类材料的粗加工和断续加工。



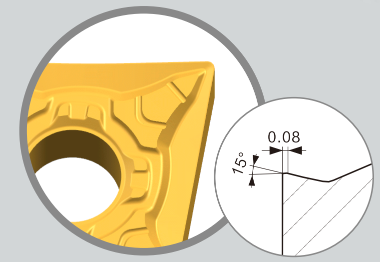


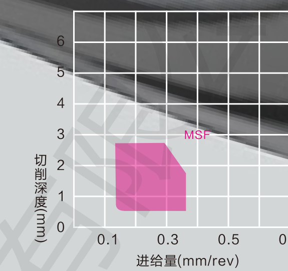
ROUGHING
Three-dimension designed with double rake angle, wide margin and negative chamfer;
Wonderful blade intensity gives a longer tool life time;
Suitable for steel roughing machining.

不锈钢
Stainless steel

精加工-MSF

双前角三维槽型设计；
刃口锋利,切削力低；
有效解决了积屑瘤和加工硬化等加工难点；
刃倾角的设计,很好地控制了切屑流向 ，
获得高质量的加工表面；
适合不锈钢材料的精加工。

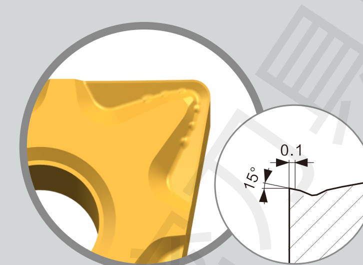


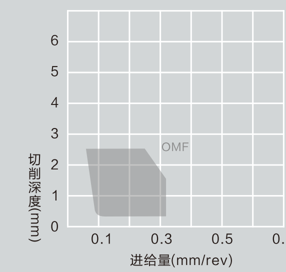


FINISHING
Three-dimension designed with double rake angle;
Sharp cutting edge and lower cutting resistance;
Efficiently solved build up edge, work hardening and other machining problems.
Cutting edge inclination designation is good to control chip flow direction and obtains excellent Surface quality.

精加工-OMF

特殊前角和刃倾角设计；
刀片刃口锋利,切削阻力小；
可获得很好的表面质量；
适合于不锈钢材料的精加工。

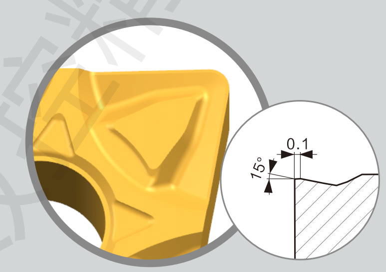


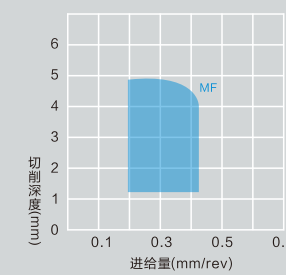


FNINSHING
Special designed rake angle and cutting edge inclination;
Sharp cutting edge, small cutting force;
Good machining surface quality;
Suitable for stainless steel finishing.

半精加工-MF

独特的槽型设计；
兼顾了刀片刃口的锋利性和强度；
有效解决了不锈钢加工中断屑、切削温度高、粘刀、加工硬化等加工难点；
可以获得更高的加工效率；
适合不锈钢材料的半精加工

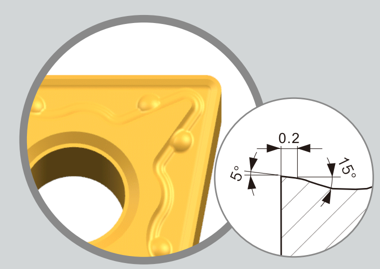


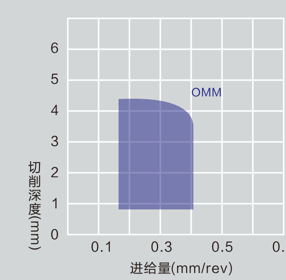


SEMI-FINISHING
Special chipbreaker design to keep both sharp cutting edge and increased blade intensity;
Efficiently solved break chip, high cutting temperature, sticking, work hardening and other machining problems.
It has very excellent efficiency
Suitable for stainless steel semi-finishing cutting.

半精加工-OMM

刃口锋利并兼顾了一定的强度；
具有很好的抗冲击能力；
切削寿命长；
适用于不锈钢材料的半精加工。





SEMI-FINISHING
Special chipbreaker design to keep cutting edge sharp and safe;
Good anti impact resistance;
Excellent tool life time;
Suitable for stainless steel semi-finishing.

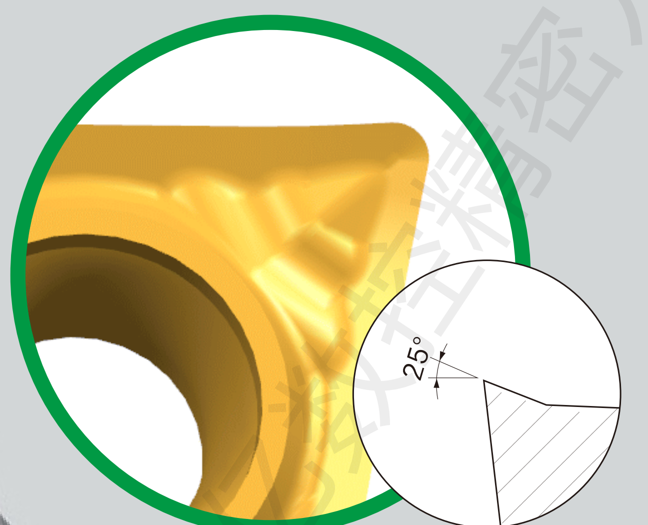
铝合金
Aluminum alloy

精加工–粗加工–NL

独一无二的三维断屑槽及大的容屑槽设计；
大前角及后角使刀片刃口更加锋利，切削更加轻快；
刃倾角的设计有效控制了切屑的流向；
刀片前刀面的镜面效果；
可获得高的表面质量及刀片寿命。

FINISHING TO ROUGHING

Unique three- dimensional chip breaker and sufficient chip pocket;
Large rake angle and clearance angle form sharp cutting edge, it' s optimized quick cutting and lower cutting loading;
Special design in cutting edge inclination efficiently control flow direction of chips.
Mirror effect in rake angle area;
Obtained good surface quality and insert life.



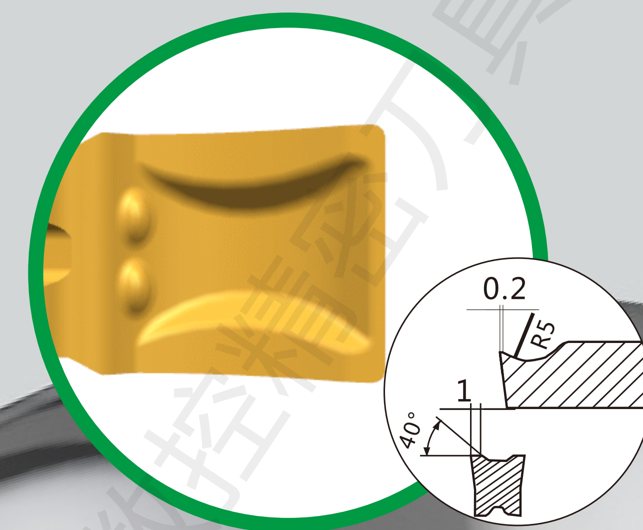
槽刀
Parting and grooving

中等加工–MP

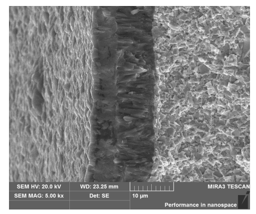
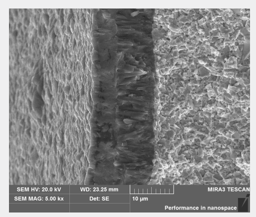
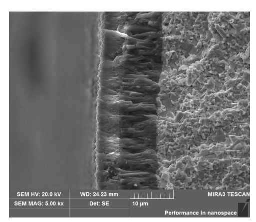
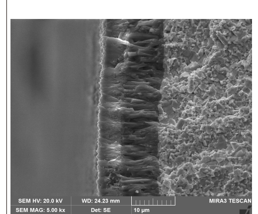
锋利的切削刃，使得切削轻快；
曲线卷屑槽，有效引导了切屑的卷曲、折断；
侧刃前角及卷屑槽，使得槽刀在横向切削表现亦不错。

SEMI–FINISHING–MP

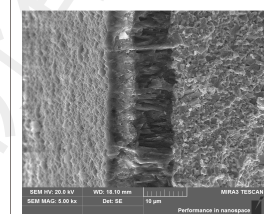
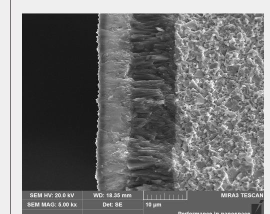
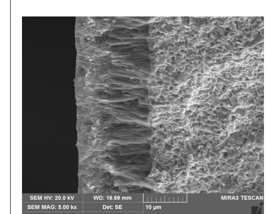
Sharp cutting edge, smooth cutting;
Curved chipbreaker groove efficiently controls form of chips, and break chips.
Side cutting edge rake angle makes insert has good performance in horizontally turning.



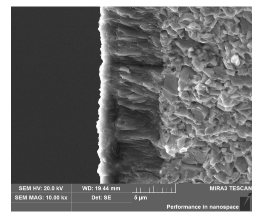
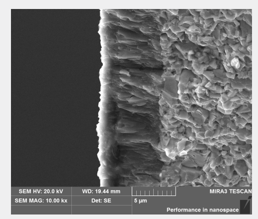
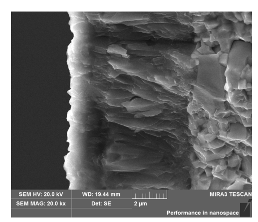
CVD

牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature	电镜照片 Electron Micrograph
OC2015	1530	CVD	黄色 Yellow	高立方相含量梯度层硬质合金基体，有很好的抗塑性变形能力和优异的高温性能。 MT−TiCN+Al_2O_3+TiN涂层,表层TiN涂层有很好的表面光洁度，并易于识别磨损。 适用于钢件材料的半精加工到精加工； high cubic content gradient carbide substrate, gives good anti−deformation resistance and excellent high temperature performance. MT−TiCN+Al_2O_3+TiN coating has very good surface quality, and easy to recognize wear. Suibtable for semifinishing to finishing steel machining.	
OC2025	1480	CVD	黄色 Yellow	较高立方相含量梯度层硬质合金基体，有很好的抗塑性变形能力和韧性。 MT-TiCN+Al_2O_3+TiN涂层,表层TiN涂层有很好的表面光洁度，并易于识别磨损。 适用于钢件材料的半精加工及粗加工； Relatively high cubic gradient carbide substrate, with good anti−deformation resistance and toughness. MT−TiCN+Al_2O_3+TiN coating has very good surface quality, and easy to recognize wear. Suibtable for semifinishing to roughing steel machining.	
OC2115	1530	CVD	黑色 Black	低Co高立方相含量硬质合金基体搭配较厚TiCN和较厚Al_2O_3涂层，经特殊后处理工艺，具有极好的耐磨性能。 钢类零件精加工及连续工况半精加工首选牌号； Low Cobalt content, and high cubic content carbide substrate combine with thick TiCN and Al_2O_3, treated by special after coating treatment, which gives insert wonderful wearing resistance. Preferred grade for semifinishing to finishing steel machining.	
OC2125	1480	CVD	黑色 Black	中Co高立方相含量硬质合金基体搭配较厚TiCN和较厚Al_2O_3涂层，经特殊后处理工艺，具有较好的耐磨性能。 钢件材料半精加工及粗加工的首选牌号； Low Cobalt content, and high cubic content carbide substrate combine with thick TiCN and Al_2O_3, treated by special after coating treatment, which gives insert wonderful wearing resistance. Preferred grade for semifinishing to finishing steel machining.	

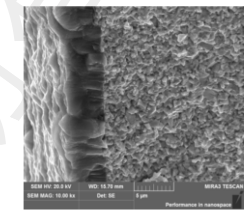
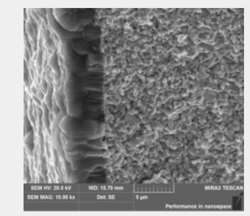
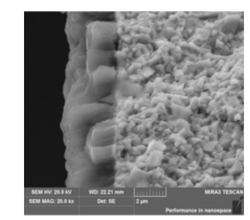
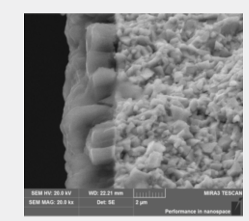
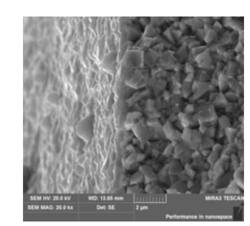
CVD

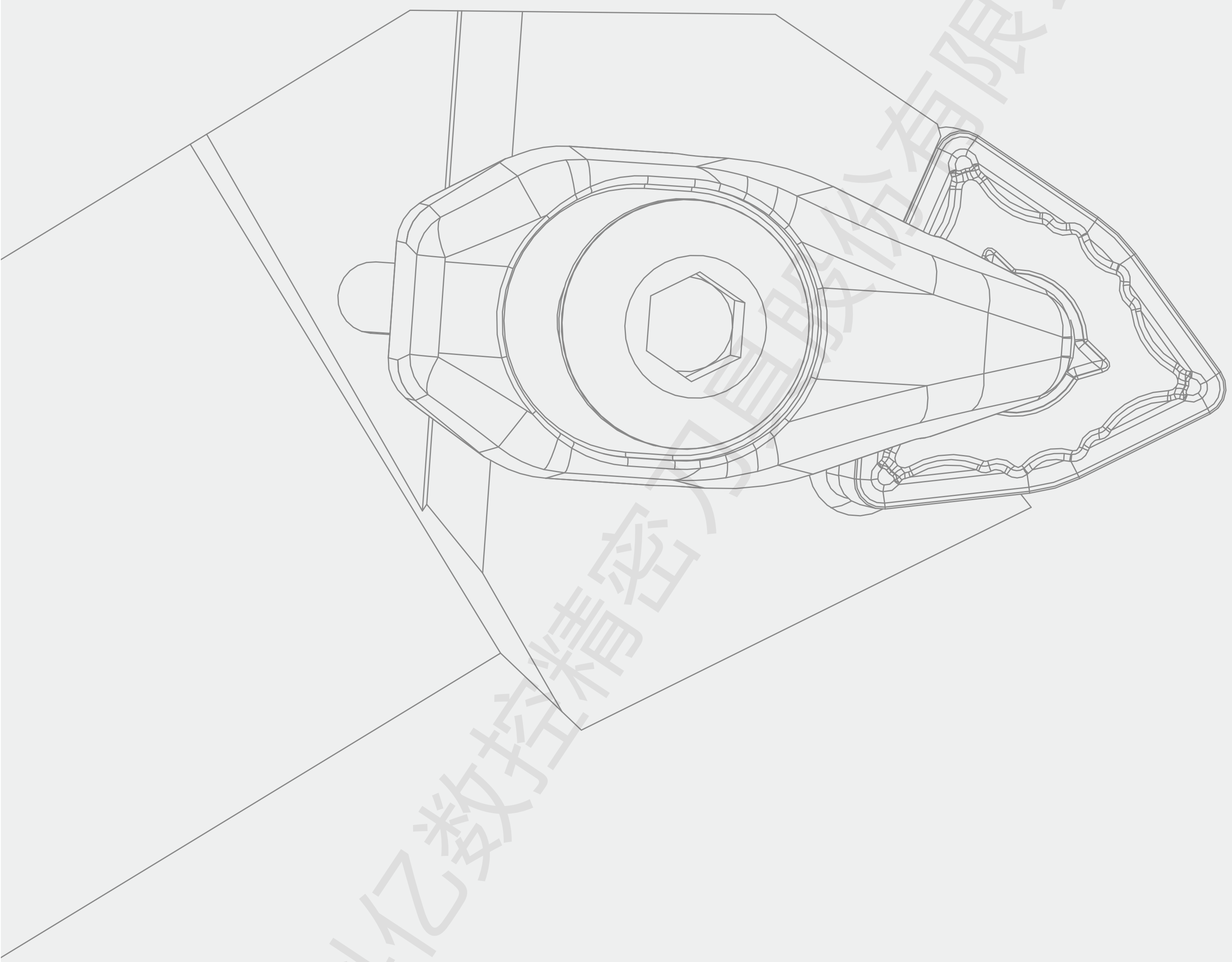
牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature	电镜照片 Electron Micrograph
OC3105	1700	CVD	黑色 Black	高硬度细晶粒硬质合金基体搭配厚TiCN和厚Al_2O_3涂层，经特殊后处理工艺，具有突出的耐磨性能。 适用于铸铁材料的精加工及半精加工； Hard substrate perfectly combined with ultra thick TiCN and Al_2O_3，0C3105 is optimized for the best wear resistance. Suitable grade for semifinishing to finishing cast iron machining.	
OC3115D	1580	CVD	黑色 Black	中等颗粒的WC晶粒的硬质合金基体搭配厚TiCN和厚Al_2O_3涂层，经特殊后处理工艺，具有很好的韧性和耐磨性性能。 适用于铸铁材料的半精加工及轻断续工况的粗加工； Mild−coarse grain substrate combines with hard−wearing and ultrathick alumina CVD coating,treated by special after coating treatment,which as good roughness and wear resistance. Suitable grade for semifinishing to slight interrupted cast iron machining.	
OC3215	1580	CVD	黑色 Black	中等颗粒的WC晶粒的硬质合金基体搭配厚TiCN和厚的织构化Al_2O_3涂层，经特殊后处理工艺，具有突出的耐磨性性能。 适用于高线速度下铸铁材料的半精加工； The medium−coarse substrate combine with thick TiCN and textured Al_2O_3, after special after coating treatment,it has outstanding wearing resistance. Suibtable for high speed semi−finihsing cast iron cutting under stable work condition.	

CVD

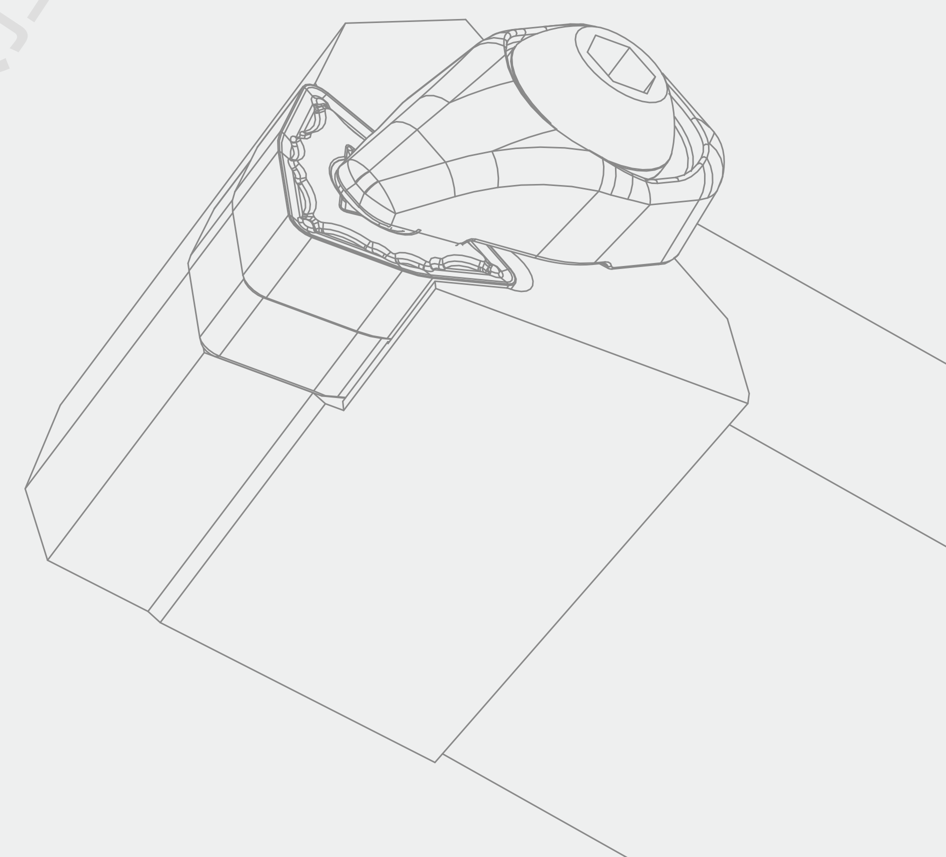
牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature	电镜照片 Electron Micrograph
OC4025	1330	CVD	黄色 Yellow	强韧型中粗晶粒硬质合金基体搭配薄的MT-TiCN和薄Al_2O_3涂层，具有良好的韧性和耐磨性，并易于加工识别。 适用于钢件材料的铣削加工。 High Co content substrate combines with thin MT–TiCN and thin Al_2O_3 coating, it is optimized for impact resistance and wearing resistance, also easy to recognize wear. Suitable for general steel milling.	
OC4035	1300	CVD	黄色 Yellow	中粗晶粒硬质合金基体具有极好的韧性，搭配薄的MT-TiCN和薄Al_2O_3涂层，具有突出的强韧性，并易于加工识别。 适用于钢件材料恶劣工况下的重载铣削加工； Mild–coarse grain substrate combine with thin MT–TiCN and thin Al_2O_3, gives excellent roughness. Suitable for steel heavy milling under bad work condition.	
OC4315	1480	CVD	金色 Glod	中Co高立方相含量硬质合金基体搭配薄的MT-TiCN和薄的Al_2O_3涂层，经特殊后处理工艺，具有较好的耐磨性能和特殊的外观，大大降低的摩擦阻力，并易于加工识别。 适用于不锈钢材料的高速连续车削加工； Medium Cobalt content, and high cubic content carbide substrate combine with thin TiCN and Al_2O_3, treated by special after coating treatment, which gives insert wonderful wearing resistance. Preferred grade for stainless steel turning at high speed.	

PVD

牌号 Grade	硬度 Hardness	涂层类型 Coating Type	颜色 Colour	特点 Feature	电镜照片 Electron Micrograph
OP2202	1650	PVD	灰色 Gray	高Co含量超细硬质合金基体，具有高的刃口强度，搭配PVD的AlTiN涂层，具有突出的耐磨性能。 钢件及铸铁材料的轻型铣削加工； High Co content and ultra fine WC grain substrate, gives wonderful cutting edge strength, combines with PVD AlTiN coating, it has oustanding wearing resistance. Suitable for steel and cast iron slight milling.	
OP1030	1500	PVD	灰色 Gray	高Co含量细晶粒硬质合金基体，具有很好的强韧性，搭配PVD通用性好的AlTiN涂层，具有很好的韧性和通用性能。 钢、不锈钢材料的铣削及钻削加工； High Co content and ultra fine WC grain substrate, gives wonderful toughness, combines with PVD AlTiN coating, it has good strength and versatility. Suitable for steel and stainless steel milling and drilling.	
OP1205	1650	PVD	紫红 Dark Purple	高Co含量的超细硬质合金基体，具有很好的刃口强度，搭配热稳定性好的PVD含硅涂层，具有摩擦系数小，纳米硬度高等特点。 钢、不锈钢材料的螺纹车削加工； High Co content and ultra fine WC grain substrate, gives wonderful cutting edge strength, combines with good thermal stability silicon coating, it has very small coefficient of friction, and good nano hardness. Suitable for steel and stainless steel continue turning and threading.	
OP1215	1560	PVD	紫红 Dark Purple	高Co含量细晶粒的硬质合金基体，具有很好的刃口强度，搭配热稳定性好的PVD含硅涂层，具有摩擦系数小，纳米硬度高等特点。 连续工况下不锈钢材料的半精车削加工及切槽加工；钢、不锈钢材料的铣削及钻削加工； High Co content and fine WC grain substrate, gives wonderful cutting edge strength, combines with good thermal stability silicon coating, it has very small coefficient of friction, and good nano hardness. Good at stianless steel semi–finishing turning , parting and grooving processing.preferred grade for steel and stainless steel milling and drilling.	
OP1315	1560	PVD	灰色 Gray	高Co含量细晶粒硬质合金基体，具有很好的刃口强度，搭配全新的PVD AlTiN涂层，具有摩擦系数小，抗氧化温度高，纳米硬度高，突出的耐磨和通用性能等优点。 钢、不锈钢材料的铣削加工； High Co content and fine WC grain substrate, gives wonderful cutting edge strength, combines with new AlTiN coating, it has very small coefficient of friction,high antioxidant temperature, and good nano hardness. Preferred grade for steel and stainless steel milling and drilling.	



A 车削刀具
TURNING TOOLS



株洲欧科亿数控精密刀具股份有限公司

普通车削刀片命名规则 ISO Turning insert Naming Rules

形状代号 Shape

C N M G 12 04 08 — OPM

A	B	C
85°	82°	80°
D	E	H
55°	75°	
K	L	M
55°		86°
O	P	R
S	T	T
		75°
V	W	Z
35°	80°	其 它

断屑槽及夹固形式代号 Chip Breaker and Hole

C N M G 12 04 08 — OPM

代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile	代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile
B	有(Y)	无(N)	>65°	N	无(N)	无（N）	
H	有(Y)	单面(S)	>65°	R	无(N)	单面（S）	
C	有(Y)	无(N)	>65°	F	无(N)	双面（D）	
J	有(Y)	双面(D)	>65°	A	有(Y)	无（N）	
W	有(Y)	无(N)	≤65°	M	有(Y)	单面（S）	
T	有(Y)	单面(S)	≤65°	G	有(Y)	双面（D）	
Q	有(Y)	无(N)	≤65°	X			
U	有(Y)	双面(D)	≤65°				

主切削刃后角代号 Clearance Angle

C N M G 12 04 08 — OPM

A	B
3°	5°
C	D
7°	15°
E	F
20°	25°
G	N
30°	0°
P	O
11°	其它后角

公差代号 Tolerance

C N M G 12 04 08 — OPM

代号 Symbol	刀尖高度m 公差（mm） m(mm)	内接圆ΦI.C 公差（mm） d=I.C. (mm)	厚度S 公差（mm） s (mm)	（参考）M级精度详细情况（按形状、大小分）●刀尖高度公差(mm) (reference)M grade tolerance detail(according to shape, size.) Tolerance of insert nose height						
				内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
				6.35	±0.08	±0.08	±0.08	±0.11	±0.16	···
				9.525	±0.08	±0.08	±0.08	±0.11	±0.16	···
				12.7	±0.13	±0.13	±0.13	±0.15	···	···
A	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	···	···
F	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	···	···
C	±0.013	±0.025	±0.025	25.4	···	±0.18	···	···	···	···
H	±0.013	±0.013	±0.013	●内接圆ΦI.C公差（mm）●Tolerance of Inscribed Circle						
E	±0.025	±0.025	±0.025	内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
G	±0.025	±0.025	±0.13							
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

A/a

普通车削刀片命名规则 ISO Turning insert Naming Rules

切削刃长度代号 Cutting Edge Length

C N M G 12 04 08 — OPM

内切圆直径 Inscribed Circle 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					

刀片厚度代号 Thickness

C N M G 12 04 08 — OPM

代号 Symbol	刀片厚度 Thickness(mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
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

厚度指刀片底面与切削刃最高部分之间的高度
The Height Between Insert Bottom And Nose

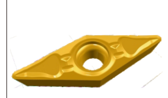
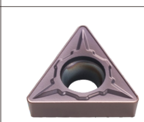
刀尖圆弧代号 Corner Radius

C N M G 12 04 08 — OPM

代号 Symbol	刀尖圆弧半径（mm） Corner Radius（mm）
00	无圆角
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） Diameter Dimension	圆形刀片 Round Insert

断屑槽型代号 Chip breaker

C N M G 12 04 08 — OPM

OPF	OPM	OPR	OMF	OMM
				
MF	MSF	OSF	OSM	OTF
				
OTM	OTR	NL	GM	
				

车削刀片一览表 Inserts Overview

CNMG-OPF	CNMG-OMF	CNMG-MSF	CNMG-OPM	CNMG-OMM	CNMG-MF
P10	P10	P10	P10	P11	P11
刃长 EdgeLength 12.9	刃长 EdgeLength 12.9	刃长 EdgeLength 9.7 12.9	刃长 EdgeLength 12.9 16.1 19.3	刃长 EdgeLength 12.9 16.1	刃长 EdgeLength 9.7 12.9 16.1

CNMG-OSM	CNMG-OPR	CNMM-PR	CNMG	CNMA	DNMG-OPF
P11	P11	P11	P12	P12	P13
刃长 EdgeLength 12.9	刃长 EdgeLength 12.9 16.1 19.3	刃长 EdgeLength 19.3	刃长 EdgeLength 12.9 16.1 19.3	刃长 EdgeLength 12.9 16.1 19.3	刃长 EdgeLength 11.6 15.5

DNMG-MSF	DNMG-OMF	DNMG-OPM	DNMG-OMM	DNMG-MF	DNMG-OPR
P13	P13	P13	P13	P13	P14
刃长 EdgeLength 11.6 15.5	刃长 EdgeLength 15.5	刃长 EdgeLength 11.6 15.5	刃长 EdgeLength 11.6 15.5	刃长 EdgeLength 11.6 15.5	刃长 EdgeLength 15.5

DNMG	DNMA	SNMG-OPF	SNMG-OMF	SNMG-OPM	SNMG-OMM
P14	P14	P15	P15	P16	P16
刃长 EdgeLength 11.6 15.5	刃长 EdgeLength 11.6 15.5	刃长 EdgeLength 12.7	刃长 EdgeLength 12.7	刃长 EdgeLength 12.7 15.875 19.05	刃长 EdgeLength 12.7 15.875

SNMG-MF	SNMG-OSM	SNMG-OPR	SNMM-PR	SNMG	SNMA
P16	P16	P17	P17	P18	P18
刃长 EdgeLength 12.7	刃长 EdgeLength 12.7	刃长 EdgeLength 12.7 15.875 19.05	刃长 EdgeLength 15.9 25.4	刃长 EdgeLength 9.525 12.7 15.875 19.05 25.4	刃长 EdgeLength 12.7 15.875 19.05

车削刀片一览表 Inserts Overview

TNMG-OPF	TNMG-OMF	TNMG-MSF	TNMG-OPM	TNMG-OMM	TNMG-MF
P19	P19	P19	P20	P20	P20
刃长 EdgeLength 16.5	刃长 EdgeLength 16.5	刃长 EdgeLength 16.5	刃长 EdgeLength 16.5 22	刃长 EdgeLength 16.5 22	刃长 EdgeLength 16.5

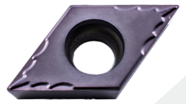
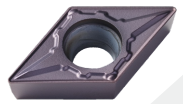
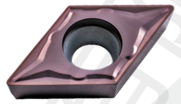
TNMG-OPR	TNMG	TNMA	VNMG-OPF	VNMG-MSF	VNMG-OPM
P21	P21	P21	P22	P22	P22
刃长 EdgeLength 16.5 22 27.5	刃长 EdgeLength 16.5 22	刃长 EdgeLength 16.5 22	刃长 EdgeLength 16.6	刃长 EdgeLength 16.6	刃长 EdgeLength 16.6

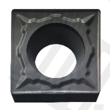
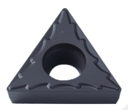
VNMG-OMM	VNMG-MF	VNMG-OPR	VNMG	VNMA	WNMG-OPF
P22	P22	P23	P23	P23	P24
刃长 EdgeLength 16.6	刃长 EdgeLength 16.6	刃长 EdgeLength 16.6	刃长 EdgeLength 16.6	刃长 EdgeLength 16.6	刃长 EdgeLength 6.5 8.7

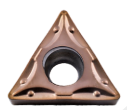
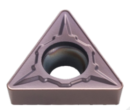
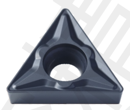
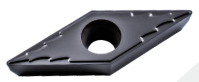
WNMG-OMF	WNMG-MSF	WNMG-OPM	WNMG-OMM	WNMG-MF	WNMG-OPR
P24	P24	P25	P25	P25	P26
刃长 EdgeLength 6.5 8.7	刃长 EdgeLength 6.5 8.7	刃长 EdgeLength 6.5 8.7	刃长 EdgeLength 6.5 8.7	刃长 EdgeLength 6.5 8.7	刃长 EdgeLength 8.7

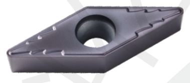
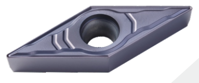
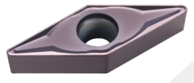
WNMG	WNMA	CCMT-OTF	CCMT-OTM	CCMT-MSF	CCMT-GM
P26	P26	P27	P27	P28	P28
刃长 EdgeLength 8.7	刃长 EdgeLength 6.5 8.7	刃长 EdgeLength 6.4 9.7 12.9	刃长 EdgeLength 6.4 9.7 12.9	刃长 EdgeLength 6.4 9.7 12.9	刃长 EdgeLength 6.4 9.7 12.9

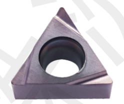
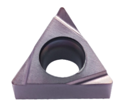
车削刀片一览表 Inserts Overview

	CCMT-OTR	DCMT-OTF	DCMT-OTM	DCMT-GM	DCMT-OTR	RCMT
	 P28	 P29	 P29	 P29	 P29	 P30
刃长 EdgeLength	6.4 9.7 12.9	7.8 11.6	7.8 11.6	7.8 11.6	11.6	8.0 16

	RCMX	SCMT-OTF	SCMT-OTM	SCMT-GM	SCMT-OTR	TCMT-OTF
	 P30	 P31	 P31	 P31	 P31	 P32
刃长 EdgeLength	8.0 10 12 16 20 25 32	9.525 12.7	9.525 12.7	9.525	9.525 12.7	11 16.5

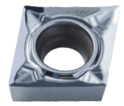
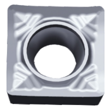
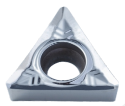
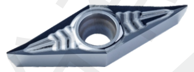
	TCMT-OTM	TCMT-GM	TCMT-OTR	VCMT-OTF	VCGT-OSF	VCMT-OTM
	 P32	 P32	 P32	 P33	 P33	 P33
刃长 EdgeLength	9.6 11 16.5	11 16.5	16.5 22	11 16.5	16.5	16.5

	VCMT-OSM	VBMT-OTF	VBMT-OTM	VBMT-OSM	VBMT-GM	VBMT-OTR
	 P33	 P34	 P34	 P34	 P34	 P34
刃长 EdgeLength	16.5	16.5	11 16.5	16.5	16.5	16.5

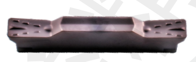
	TBGH	TPGH	KNUX	175.32
	 P35	 P35	 P36	 P37
刃长 EdgeLength	8.2 9.6 11	8.2 9.6 11	16.2	19.1

车削刀片一览表 Inserts Overview

铝加工刀片一览表 Insert for aluminum

	CCGX-NL	DCGX-NL	SCGX-NL	TCGX-NL	VCGX-NL
	 P38	 P38	 P38	 P39	 P39
刃长 EdgeLength	6.4 9.7 12.9	7.8 11.6	9.525 12.7	9.6 11 16.5	11 16.5 22

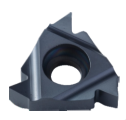
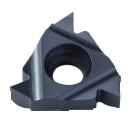
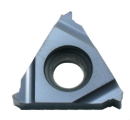
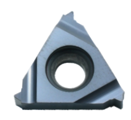
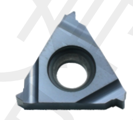
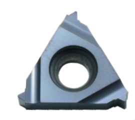
切断切槽刀片一览表 Parting and Grooving Inserts

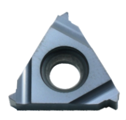
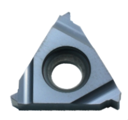
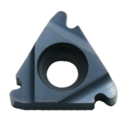
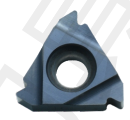
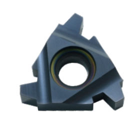
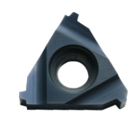
	Q□□W-MP	ZQMX-1E	Q□□D-MG
	 P41	 P41	 P42
刃长 EdgeLength	2.5 3 4 6	3.1 4.1 5.1 6.4	2.5 3 4 6

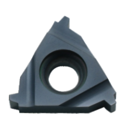
B
C
D

车削刀片一览表 Inserts Overview

螺纹刀片一览表
Threading Insert

60° V牙形螺纹刀片 60° general pitch threads	55° V牙形螺纹刀片 55° general pitch threads	ISO 米制螺纹刀片 ISO metric threads	Un美制螺纹刀片 United threads	W惠氏螺纹刀片 Whitworth threads	BSPT英制锥管螺纹刀片 British standard taper pipe threads
 P45	 P46	 P47	 P48	 P49	 P50

NPT 英制锥管螺纹刀片 NPT American standard taper pipe threads	UNJ 美制航空螺纹刀片 UNJ American standard aerospace and aviation threads	RD DIN405圆管30° 螺纹刀片 30° DIN405 round threads	APIRD 石油管螺纹刀片 Petroleum pipeline threads	TR 公制30° 梯形螺纹刀片 30° ISO metric threading insert	ACME 美制29° 梯形螺纹刀片 29° American standard ACME threads
 P51	 P52	 P53	 P53	 P54	 P55

STACME 矮牙美制29° 梯形螺纹刀片 29° American standard STACME threads
 P56

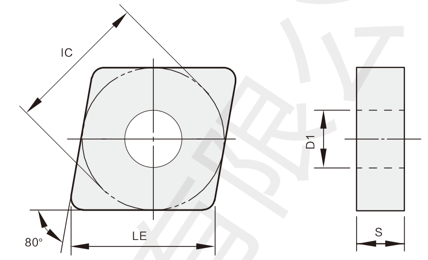
槽型说明一览表 Chipbreaker Introduction Chart

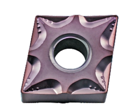
ISO Code	P	P/M	M	K	N	S
精加工 Finishing	**OPF** 适用于钢类材料的精加工槽型。 OPM Chip Breaker: Suitable for finishing ISO P material.	**OTF** 适用于钢或者不锈钢精加工通用槽型。 OTF Chip Breaker: Suitable for finishing ISO P and M material.	**OMF** 适用于不锈钢类材料的精加工槽型。 OMF Chip Breaker: Suitable for finishing ISO M material. **MSF** 适用于不锈钢类材料的精加工槽型。 MSF Chip Breaker: Suitable for finishing ISO M material.			**OSF** 适用于高温合金的精加工槽型。 OSF Chip Breaker: Suitable for Hi–Temp Alloy Finishing Machinning.
半精加工 Semi finishing	**OPM** 适用于钢类材料的半精加工槽型。 OPM Chip Breaker: Suitable for semi–finishing ISO P material.	**OTM** 适用于钢或不锈钢半精加工通用槽型。 OTM Chip Breaker: Suitable for semi–finishing ISO P and M material. **GM** 适用于钢或不锈钢半精加工通用槽型。 GM Chip Breaker: Suitable for semi–finishing ISO P and M material.	**MF** 适用于不锈钢类材料的半精加工槽型。 MF Chip Breaker: Suitable for semi–finishing ISO M material. **OMM** 适用于不锈钢类材料的半精加工槽型。 OMM Chip Breaker: Suitable for semi–finishing ISO M material.	**通槽 General Chipbreaker:** 适用于铸铁材料的半精加工槽型 General Chipbreaker: Suitable for Cast iron Semi–finishing cutting.	**NL** 适用于铝，铝合金类材料加工槽型。 NL Chip Breaker: Suitable for aluminum and aluminum alloy material.	**OSM** 适用于高温合金的半精加工槽型。 OSM Chip Breaker: Suitable for Hi–Temp Alloy Semi–finishing Machining
粗加工 Roughing	**OPR** 适用于钢类材料的粗加工槽型。 OPR Chip Breaker: Suitable for roughing ISO P material.	**OTR** 适用于钢或不锈钢的粗加工通用槽型。 OTR Chip Breaker: Suitable for finishing ISO M material.		**平板 Flat:** 适用于铸铁材料的粗加工槽型 Flat Chipbreaker: Suitable for Cast iron Roughing cutting		

牌号一览表 Grade Overview

ISO使用 ISO usage		普通车削 ISO Turning			螺纹 Threrding	切断切槽 Parting and Grooving			铣削 Milling			钻削 Drilling	
代号 Symbol		涂层 Coating			涂层 Coating	涂层 Coating			涂层 Coating			涂层 Coating	
		CVD	PVD	硬质合金 uncoated carbide	PVD	CVD	PVD	硬质合金 uncoated carbide	CVD	PVD	硬质合金 uncoated carbide	CVD	PVD
P 钢 Steel	01 10 20 30 40	OC2015, OC2115, OC2025, OC2125	OP1215		OP1205		OP1215		OC4225	OP1315, OP1215, OP2202			
M 不锈钢 Stainless Steel	01 10 20 30 40	OC4315, OC4225	OP1215		OP1205		OP1215		OC4025, OC4035	OP1215, OP1315			OP1215, OP1030
K 铸铁 Cast Iron	01 10 20 30 40	OC3105, OC3115D, OC3215				OC2025				OP2202			OP1215
N 有色金属 Aluminum Alloy	01 10 20 30			OK434									
S 钛合金 耐热合金 Hi-temp Alloy	01 10 20 30		OP1105							OP1215			

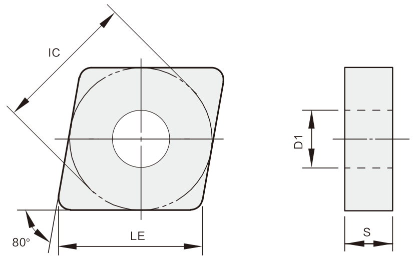
车削用刀片 / 负角型 Turning Insert (Negative) CN□□

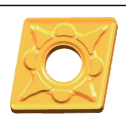
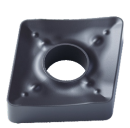


刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	P OC2025	P OC2115	P OC2125	M OC4315	M OP1205	M OP1215	M OP1315	K OC3105	K OC3215	K OC3115D	S OP1105
	精加工 Finishing	CNMG120404-OPF	12.9	12.7	4.76	5.16	0.4			▲	●								
		CNMG120408-OPF	12.9	12.7	4.76	5.16	0.8			▲	●								
		CNMG120404-OMF	12.9	12.7	4.76	5.16	0.4					●	●	▲	●				
		CNMG120408-OMF	12.9	12.7	4.76	5.16	0.8					●	●	▲	●				
		CNMG090304-MSF	9.7	9.525	3.18	3.81	0.4					●	●	▲	●				
		CNMG120404-MSF	12.9	12.7	4.76	5.16	0.4					●	●	▲	●				
	半精加工 Semi finishing	CNMG120404-OPM	12.9	12.7	4.76	5.16	0.4			●	▲						●		
		CNMG120408-OPM	12.9	12.7	4.76	5.16	0.8			●	▲						●		
		CNMG120412-OPM	12.9	12.7	4.76	5.16	1.2			●	▲						●		
		CNMG120416-OPM	12.9	12.7	4.76	5.16	1.6			●	▲						●		
		CNMG160608-OPM	16.1	15.875	6.35	6.35	0.8			●	▲						●		
		CNMG160612-OPM	16.1	15.875	6.35	6.35	1.2			●	▲						●		
		CNMG160616-OPM	16.1	15.875	6.35	6.35	1.6			●	▲						●		
		CNMG190608-OPM	19.3	19.05	6.35	7.94	0.8			●	▲						●		
		CNMG190612-OPM	19.3	19.05	6.35	7.94	1.2			●	▲						●		
		CNMG190616-OPM	19.3	19.05	6.35	7.94	1.6			●	▲						●		

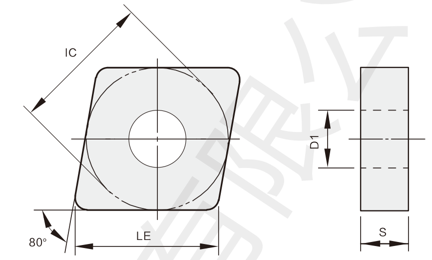
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

车削用刀片 / 负角型 Turning Insert (Negative) CN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	半精加工 Semi finishing	CNMG120404-OMM	12.9	12.7	4.76	5.16	0.4				●	●	●	▲	●				
		CNMG120408-OMM	12.9	12.7	4.76	5.16	0.8				●	●	●	▲	●				
		CNMG160608-OMM	16.1	15.875	6.35	6.35	0.8				●	●	●	▲	●				
		CNMG090308-MF	9.7	9.525	3.18	3.81	0.8					●	●	▲	●				
		CNMG120408-MF	12.9	12.7	4.76	5.16	0.8					●	●	▲	●				
		CNMG120412-MF	12.9	12.7	4.76	5.16	1.2					●	●	▲	●				
		CNMG160612-MF	16.1	15.875	6.35	6.35	1.6					●	●	▲	●				
		CNMG120404-OSM	12.9	12.7	4.76	5.16	0.4												●
		CNMG120408-OSM	12.9	12.7	4.76	5.16	0.8												●
		CNMG120412-OSM	12.9	12.7	4.76	5.16	1.2												●
	粗加工 Roughing	CNMG120408-OPR	12.9	12.7	4.76	5.16	0.8		●	●	▲							●	
		CNMG120412-OPR	12.9	12.7	4.76	5.16	1.2		●	●	▲							●	
		CNMG120416-OPR	12.9	12.7	4.76	5.16	1.6		●	●	▲							●	
		CNMG160608-OPR	16.1	15.875	6.35	6.35	0.8		●	●	▲							●	
		CNMG160612-OPR	16.1	15.875	6.35	6.35	1.2		●	●	▲							●	
		CNMG160616-OPR	16.1	15.875	6.35	6.35	1.6		●	●	▲							●	
		CNMG190608-OPR	19.3	19.05	6.35	7.94	0.8		●	●	▲							●	
		CNMG190612-OPR	19.3	19.05	6.35	7.94	1.2		●	●	▲							●	
		CNMG190616-OPR	19.3	19.05	6.35	7.94	1.6		●	●	▲							●	
	重加工 Heavy load machining	CNMM190616-PR	19.3	19.05	6.35	7.94	1.6		●	●	▲							●	

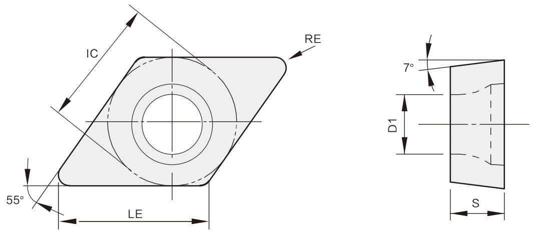
车削用刀片 / 负角型 Turning Insert (Negative) CN□□

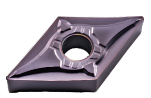
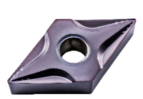
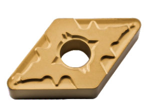
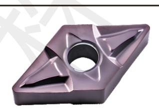


刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	半精加工 Semi finishing	CNMG120404	12.9	12.7	4.76	5.16	0.4		●	●	●					●	▲	●	
		CNMG120408	12.9	12.7	4.76	5.16	0.8		●	●	●					●	▲	●	
		CNMG120412	12.9	12.7	4.76	5.16	1.2		●	●	●					●	▲	●	
		CNMG160608	16.1	15.875	6.35	6.35	0.8		●	●	●					●	▲	●	
		CNMG160612	16.1	15.875	6.35	6.35	1.2		●	●	●					●	▲	●	
		CNMG160616	16.1	15.875	6.35	6.35	1.6		●	●	●					●	▲	●	
		CNMG190608	19.3	19.05	6.35	7.94	0.8		●	●	●					●	▲	●	
		CNMG190612	19.3	19.05	6.35	7.94	1.2		●	●	●					●	▲	●	
		CNMG190616	19.3	19.05	6.35	7.94	1.6		●	●	●					●	▲	●	
	粗加工 Roughing	CNMA120404	12.9	12.7	4.76	5.16	0.4									●	▲	●	
		CNMA120408	12.9	12.7	4.76	5.16	0.8									●	▲	●	
		CNMA120412	12.9	12.7	4.76	5.16	1.2									●	▲	●	
		CNMA120416	12.9	12.7	4.76	5.16	1.6									●	▲	●	
		CNMA160608	16.1	15.875	6.35	6.35	0.8									●	▲	●	
		CNMA160612	16.1	15.875	6.35	6.35	1.2									●	▲	●	
		CNMA160616	16.1	15.875	6.35	6.35	1.6									●	▲	●	
		CNMA160620	16.1	15.875	6.35	6.35	2.0									●	▲	●	
		CNMA190612	19.3	19.05	6.35	7.94	1.2									●	▲	●	
		CNMA190616	19.3	19.05	6.35	7.94	1.6									●	▲	●	

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

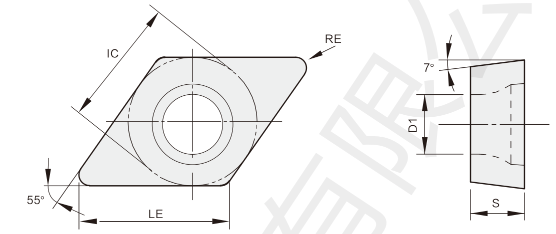
车削用刀片 / 负角型 Turning Insert (Negative) DN□□

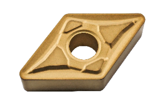
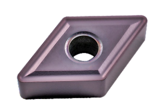
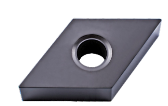


刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	M OC4315	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	精加工 Finishing	DNMG110404-OPF	11.6	9.525	4.76	3.81	0.4		▲	●									
		DNMG110408-OPF	11.6	9.525	4.76	3.81	0.8		▲	●									
		DNMG150404-OPF	15.5	12.7	4.76	5.16	0.4		▲	●									
		DNMG150408-OPF	15.5	12.7	4.76	5.16	0.8		▲	●									
		DNMG150604-OPF	15.5	12.7	6.35	5.16	0.4		▲	●									
		DNMG150608-OPF	15.5	12.7	6.35	5.16	0.8		▲	●									
		DNMG110404-MSF	11.6	9.525	4.76	3.81	0.4				●	●	▲	●					
		DNMG150404-MSF	15.5	12.7	4.76	5.16	0.4				●	●	▲	●					
		DNMG150604-OMF	15.5	12.7	6.35	5.16	0.4				●	●	▲	●					
		DNMG150608-OMF	15.5	12.7	6.35	5.16	0.8				●	●	▲	●					
	半精加工 Semi finishing	DNMG110404-OPM	11.6	9.525	4.76	3.81	0.4		●	▲							●		
		DNMG110408-OPM	11.6	9.525	4.76	3.81	0.8		●	▲							●		
		DNMG110412-OPM	11.6	9.525	4.76	3.81	1.2		●	▲							●		
		DNMG150404-OPM	15.5	12.7	4.76	5.16	0.4		●	▲							●		
		DNMG150408-OPM	15.5	12.7	4.76	5.16	0.8		●	▲							●		
		DNMG150412-OPM	15.5	12.7	4.76	5.16	1.2		●	▲							●		
		DNMG150604-OPM	15.5	12.7	6.35	5.16	0.4		●	▲							●		
		DNMG150608-OPM	15.5	12.7	6.35	5.16	0.8		●	▲							●		
		DNMG150612-OPM	15.5	12.7	6.35	5.16	1.2		●	▲							●		
		DNMG110404-OMM	11.6	9.525	4.76	3.81	0.4			●	●	●	▲	●					
		DNMG110408-OMM	11.6	9.525	4.76	3.81	0.8			●	●	●	▲	●					
		DNMG150404-OMM	15.5	12.7	4.76	5.16	0.4			●	●	●	▲	●					
		DNMG150408-OMM	15.5	12.7	4.76	5.16	0.8			●	●	●	▲	●					
		DNMG150604-OMM	15.5	12.7	6.35	5.16	0.4			●	●	●	▲	●					
		DNMG150608-OMM	15.5	12.7	6.35	5.16	0.8			●	●	●	▲	●					
		DNMG150612-OMM	15.5	12.7	6.35	5.16	1.2			●	●	●	▲	●					
		DNMG110408-MF	11.6	9.525	4.76	3.81	0.8					●	▲	●					
		DNMG150408-MF	15.5	12.7	4.76	5.16	0.8					●	▲	●					
		DNMG150608-MF	15.5	12.7	6.35	5.16	0.8					●	▲	●					

A/a

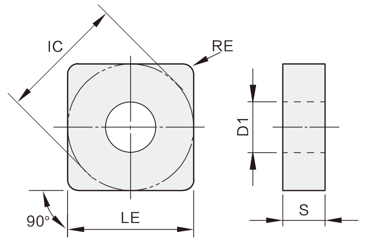
车削用刀片 / 负角型 Turning Insert (Negative) DN□□

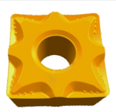


刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	M OC4315	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	粗加工 Roughing	DNMG150408-OPR	15.5	12.7	4.76	5.16	0.8		●	●	▲						●		
		DNMG150412-OPR	15.5	12.7	4.76	5.16	1.2		●	●	▲						●		
		DNMG150608-OPR	15.5	12.7	6.35	5.16	0.8		●	●	▲						●		
		DNMG150612-OPR	15.5	12.7	6.35	5.16	1.2		●	●	▲						●		
		DNMG150616-OPR	15.5	12.7	6.35	5.16	1.6		●	●	▲						●		
	半精加工 Semi finishing	DNMG110408	11.6	9.525	4.76	3.81	0.8			●	●					●	▲	●	
		DNMG150404	15.5	12.7	4.76	5.16	0.4			●	●					●	▲	●	
		DNMG150408	15.5	12.7	6.35	5.16	0.8			●	●					●	▲	●	
		DNMG150412	15.5	12.7	6.35	5.16	1.2			●	●					●	▲	●	
		DNMG150608	15.5	12.7	6.35	5.16	0.8			●	●					●	▲	●	
		DNMG150612	15.5	12.7	6.35	5.16	1.2			●	●					●	▲	●	
	粗加工 Roughing	DNMA110416	11.6	9.525	4.76	3.81	1.6									●	▲	●	
		DNMA150404	15.5	12.7	4.76	5.16	0.4									●	▲	●	
		DNMA150408	15.5	12.7	4.76	5.16	0.8									●	▲	●	
		DNMA150604	15.5	12.7	6.35	5.16	0.4									●	▲	●	
		DNMA150608	15.5	12.7	6.35	5.16	0.8									●	▲	●	
		DNMA150612	15.5	12.7	6.35	5.16	1.2									●	▲	●	
		DNMA150616	15.5	12.7	6.35	5.16	1.6									●	▲	●	

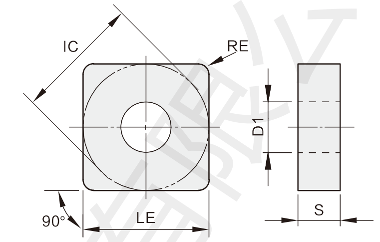
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

车削用刀片 / 负角型 Turning Insert (Negative) SN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	SNMG120404-OPF	12.7	12.7	4.76	5.16	0.4			▲	●								
		SNMG120408-OPF	12.7	12.7	4.76	5.16	0.8			▲	●								
		SNMG120408-OMF	12.7	12.7	4.76	5.16	0.8					●	●	▲	▲				

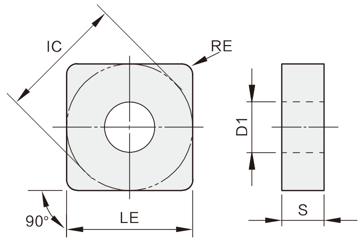
车削用刀片 / 负角型 Turning Insert (Negative) SN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	半精加工 Semi finishing	SNMG120404-OPM	12.7	12.7	4.76	5.16	0.4			●	▲						●		
		SNMG120408-OPM	12.7	12.7	4.76	5.16	0.8			●	▲						●		
		SNMG120412-OPM	12.7	12.7	4.76	5.16	1.2			●	▲						●		
		SNMG150608-OPM	15.875	15.875	6.35	6.35	0.8			●	▲						●		
		SNMG150612-OPM	15.875	15.875	6.35	6.35	1.2			●	▲						●		
		SNMG190612-OPM	19.05	19.05	6.35	7.94	1.2			●	▲						●		
		SNMG120404-OMM	12.7	12.7	4.76	5.16	0.4				●	●	●	▲	●				
		SNMG120408-OMM	12.7	12.7	4.76	5.16	0.8				●	●	●	▲	●				
		SNMG120412-OMM	12.7	12.7	4.76	5.16	1.2				●	●	●	▲	●				
		SNMG150608-OMM	15.875	15.875	6.35	6.35	0.8				●	●	●	▲	●				
		SNMG120408-MF	12.7	12.7	4.76	5.16	0.8					●	●	▲	●				
		SNMG120408-OSM	12.7	12.7	4.76	5.16	0.8												●

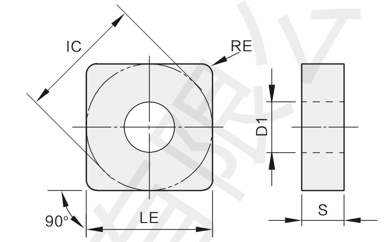
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

车削用刀片 / 负角型 Turning Insert (Negative) SN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	粗加工 Roughing	SNMG120408-OPR	12.7	12.7	4.76	5.16	0.8		●	●	▲						●		
		SNMG120412-OPR	12.7	12.7	4.76	5.16	1.2		●	●	▲						●		
		SNMG150608-OPR	15.875	15.875	6.35	6.35	0.8		●	●	▲						●		
		SNMG150612-OPR	15.875	15.875	6.35	6.35	1.2		●	●	▲						●		
		SNMG190612-OPR	19.05	19.05	6.35	7.94	1.2		●	●	▲						●		
		SNMG190616-OPR	19.05	19.05	6.35	7.94	1.6		●	●	▲						●		
		SNMM190624-PR	19.05	19.05	6.35	7.94	2.4		●	●	▲						●		
		SNMM250924-PR	25.4	25.4	9.525	9.12	2.4		●	●	▲						●		

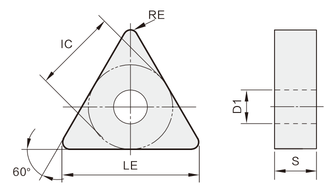
车削用刀片 / 负角型 Turning Insert (Negative) SN□□

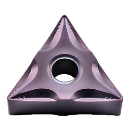
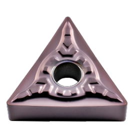


刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	半精加工 Semi finishing	SNMG090304	9.525	9.525	3.18	3.81	0.4				●					●	▲	●	
		SNMG090308	9.525	9.525	3.18	3.81	0.8				●					●	▲	●	
		SNMG120404	12.7	12.7	4.76	5.16	0.4				●					●	▲	●	
		SNMG120408	12.7	12.7	4.76	5.16	0.8				●					●	▲	●	
		SNMG120412	12.7	12.7	4.76	5.16	1.2				●					●	▲	●	
		SNMG120416	12.7	12.7	4.76	5.16	1.6				●					●	▲	●	
		SNMG150608	15.875	15.875	6.35	6.35	0.8				●					●	▲	●	
		SNMG150612	15.875	15.875	6.35	6.35	1.2				●					●	▲	●	
		SNMG190612	19.05	19.05	6.35	7.94	1.2		●	●	▲						●		
		SNMG190616	19.05	19.05	6.35	7.94	1.6		●	●	▲						●		
		SNMG250724	25.4	25.4	7.94	9.12	2.4		●	●	▲						●		
		SNMG250924	25.4	25.4	9.525	9.12	2.4		●	●	▲						●		
	粗加工 Roughing	SNMA120408	12.7	12.7	4.76	5.16	0.8									●	▲	●	
		SNMA120412	12.7	12.7	4.76	5.16	1.2									●	▲	●	
		SNMA120416	12.7	12.7	4.76	5.16	1.6									●	▲	●	
		SNMA150608	15.875	15.875	6.35	6.35	0.8									●	▲	●	
		SNMA150612	15.875	15.875	6.35	6.35	1.2									●	▲	●	
		SNMA190612	19.05	19.05	6.35	7.94	1.2										●	●	
		SNMA190616	19.05	19.05	6.35	7.94	1.6										●	●	

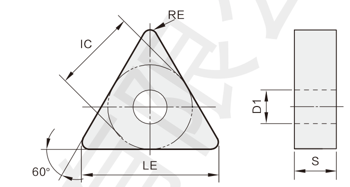
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

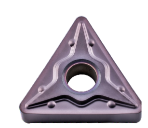
车削用刀片 / 负角型 Turning Insert (Negative) TN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	TNMG160404-OPF	16.5	9.525	4.76	3.81	0.4			▲	●								
		TNMG160408-OPF	16.5	9.525	4.76	3.81	0.8			▲	●								
		TNMG160404-OMF	16.5	9.525	4.76	3.81	0.4					●	●	▲	●				
		TNMG160408-OMF	16.5	9.525	4.76	3.81	0.8					●	●	▲	●				
		TNMG160404-MSF	16.5	9.525	4.76	3.81	0.4					●	●	▲	●				

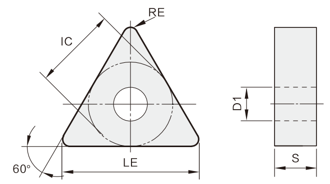
车削用刀片 / 负角型 Turning Insert (Negative) TN□□

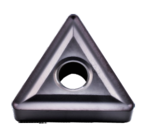


刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	半精加工 Semi finishing	TNMG160404-OPM	16.5	9.525	4.76	3.81	0.4			●	▲						●		
		TNMG160408-OPM	16.5	9.525	4.76	3.81	0.8			●	▲						●		
		TNMG160412-OPM	16.5	9.525	4.76	3.81	1.2			●	▲						●		
		TNMG220404-OPM	22	12.7	4.76	5.16	0.4			●	▲						●		
		TNMG220408-OPM	22	12.7	4.76	5.16	0.8			●	▲						●		
		TNMG220412-OPM	22	12.7	4.76	5.16	1.2			●	●						●		
		TNMG220416-OPM	22	12.7	4.76	5.16	1.6			●	●						●		
		TNMG160404-OMM	16.5	9.525	4.76	3.81	0.4				●	●	●	▲	●				
		TNMG160408-OMM	16.5	9.525	4.76	3.81	0.8				●	●	●	▲	●				
		TNMG160412-OMM	16.5	9.525	4.76	3.81	1.2				●	●	●	▲	●				
		TNMG220404-OMM	22	12.7	4.76	5.16	0.4				●	●	●	▲	●				
		TNMG220408-OMM	22	12.7	4.76	5.16	0.8				●	●	●	▲	●				
		TNMG220412-OMM	22	12.7	4.76	5.16	1.2				●	●	●	▲	●				
		TNMG160404-MF	16.5	9.525	4.76	3.81	0.4					●	●	▲	●				
		TNMG160408-MF	16.5	9.525	4.76	3.81	0.8					●	●	▲	●				
		TNMG160412-MF	16.5	9.525	4.76	3.81	1.2					●	●	▲	●				

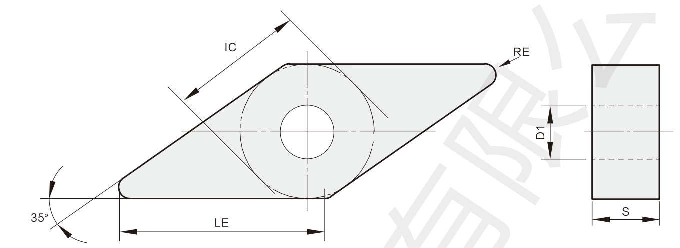
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

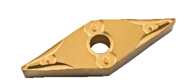
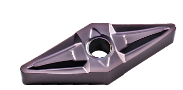
车削用刀片 / 负角型 Turning Insert (Negative) TN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	M OC4315	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	粗加工 Roughing	TNMG160404-OPR	16.5	9.525	4.76	3.81	0.4		●	●	▲						●		
		TNMG160408-OPR	16.5	9.525	4.76	3.81	0.8		●	●	▲						●		
		TNMG160412-OPR	16.5	9.525	4.76	3.81	1.2		●	●	▲						●		
		TNMG160416-OPR	16.5	9.525	4.76	3.81	1.6		●	●	▲						●		
		TNMG220408-OPR	22	12.7	4.76	5.16	0.8		●	●	▲						●		
		TNMG220412-OPR	22	12.7	4.76	5.16	1.2		●	●	▲						●		
		TNMG220416-OPR	22	12.7	4.76	5.16	1.6		●	●	▲						●		
		TNMG270612-OPR	27.5	15.875	6.35	6.35	1.2		●	●	▲						●		
	半精加工 Semi finishing	TNMG160408	16.5	9.525	4.76	3.81	0.8		●	●	●					●	▲	●	
		TNMG160412	16.5	9.525	4.76	3.81	1.2		●	●	●					●	▲	●	
		TNMG220404	22	12.7	4.76	5.16	0.4		●	●	●					●	▲	●	
		TNMG220408	22	12.7	4.76	5.16	0.8		●	●	●					●	▲	●	
		TNMG220412	22	12.7	4.76	5.16	1.2		●	●	●					●	▲	●	
		TNMG220416	22	12.7	4.76	5.16	1.6		●	●	●					●	▲	●	
	粗加工 Roughing	TNMA160404	16.5	9.525	4.76	3.81	0.4									●	▲	●	
		TNMA160408	16.5	9.525	4.76	3.81	0.8									●	▲	●	
		TNMA160412	16.5	9.525	4.76	3.81	1.2									●	▲	●	
		TNMA160416	16.5	9.525	4.76	3.81	1.6									●	▲	●	
		TNMA220408	22	12.7	4.76	5.16	0.8									●	▲	●	
		TNMA220412	22	12.7	4.76	5.16	1.2									●	▲	●	
		TNMA220416	22	12.7	4.76	5.16	1.6									●	▲	●	

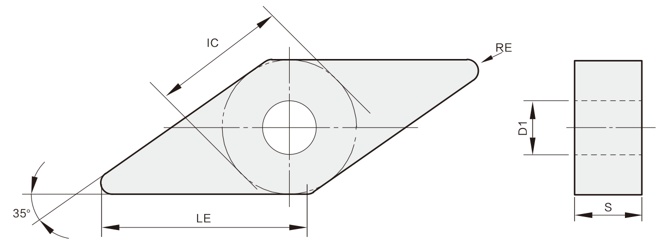
车削用刀片 / 负角型 Turning Insert (Negative) VN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	M OC4315	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	精加工 Finishing	VNMG160404-OPF	16.6	9.525	4.76	3.81	0.4			▲	●								
		VNMG160408-OPF	16.6	9.525	4.76	3.81	0.8			▲	●								
		VNMG160404-MSF	16.6	9.525	4.76	3.81	0.4					●	●	▲	●				
	半精加工 Semi finishing	VNMG160404-OPM	16.6	9.525	4.76	3.81	0.4			●	▲						●		
		VNMG160408-OPM	16.6	9.525	4.76	3.81	0.8			●	▲						●		
		VNMG160412-OPM	16.6	9.525	4.76	3.81	1.2			●	▲						●		
		VNMG160404-OMM	16.6	9.525	4.76	3.81	0.4				●	●	●	▲	●				
		VNMG160408-OMM	16.6	9.525	4.76	3.81	0.8				●	●	●	▲	●				
		VNMG160408-MF	16.6	9.525	4.76	3.81	0.8					●	●	▲	●				

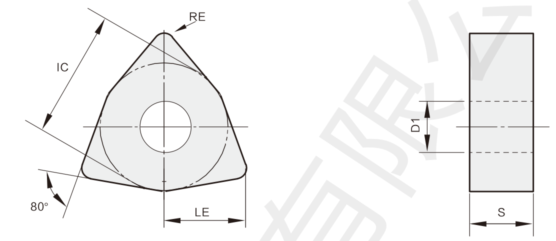
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

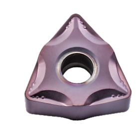
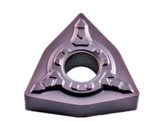
车削用刀片 / 负角型 Turning Insert (Negative) VN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	粗加工 Roughing	VNMG160408-OPR	16.6	9.525	4.76	3.81	0.4		●	●	▲						●		
		VNMG160412-OPR	16.6	9.525	4.76	3.81	0.8		●	●	▲						●		
	半精加工 Semi finishing	VNMG160404	16.6	9.525	4.76	3.81	0.4		●	●						●	▲	●	
		VNMG160408	16.6	9.525	4.76	3.81	0.8		●	●						●	▲	●	
	粗加工 Roughing	VNMA160404	16.6	9.525	4.76	3.81	0.4									●	▲	●	
		VNMA160408	16.6	9.525	4.76	3.81	0.8									●	▲	●	

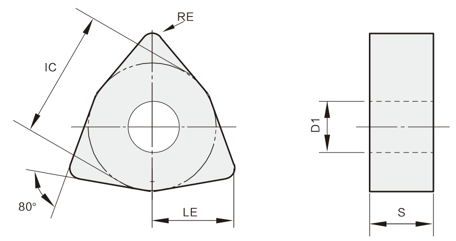
车削用刀片 / 负角型 Turning Insert (Negative) WN□□

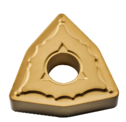
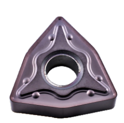


刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	WNMG060404-OPF	6.5	9.525	4.76	3.81	0.4			▲	●								
		WNMG060408-OPF	6.5	9.525	4.76	3.81	0.8			▲	●								
		WNMG080404-OPF	8.7	12.7	4.76	5.16	0.4			▲	●								
		WNMG080408-OPF	8.7	12.7	4.76	5.16	0.8			▲	●								
		WNMG060408-OMF	6.5	9.525	4.76	3.81	0.8					●	●	▲	●				
		WNMG080404-OMF	8.7	12.7	4.76	5.16	0.4					●	●	▲	●				
		WNMG080408-OMF	8.7	12.7	4.76	5.16	0.8					●	●	▲	●				
		WNMG060304-MSF	6.5	9.525	3.18	3.81	0.4					●	●	▲	●				
		WNMG060404-MSF	6.5	9.525	4.76	3.81	0.4					●	●	▲	●				
		WNMG080404-MSF	8.7	12.7	4.76	5.16	0.4					●	●	▲	●				

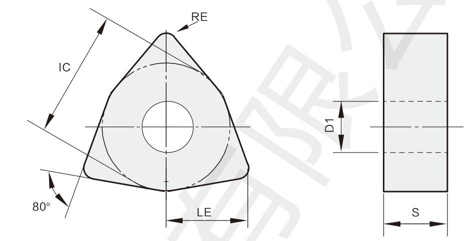
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

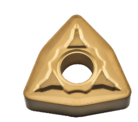
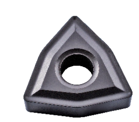
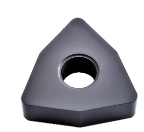
车削用刀片 / 负角型 Turning Insert (Negative) WN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	P OC2025	P OC2115	P OC2125	M OC4315	M OP1205	M OP1215	M OP1315	K OC3105	K OC3215	K OC3115D	S OP1105
	半精加工 Semi finishing	WNMG060408-OPM	6.5	9.525	4.76	3.81	0.8			●	▲						●		
		WNMG080404-OPM	8.7	12.7	4.76	5.16	0.4			●	▲						●		
		WNMG080408-OPM	8.7	12.7	4.76	5.16	0.8			●	▲						●		
		WNMG080412-OPM	8.7	12.7	4.76	5.16	1.2			●	▲						●		
		WNMG060408-OMM	6.5	9.525	4.76	3.81	0.8				●	●	●	▲	●				
		WNMG060412-OMM	6.5	9.525	4.76	3.81	1.2				●	●	●	▲	●				
		WNMG080404-OMM	8.7	12.7	4.76	5.16	0.4				●	●	●	▲	●				
		WNMG080408-OMM	8.7	12.7	4.76	5.16	0.8				●	●	●	▲	●				
		WNMG080412-OMM	8.7	12.7	4.76	5.16	1.2				●	●	●	▲	●				
		WNMG060408-MF	6.5	9.525	4.76	3.81	0.8					●	●	▲	●				
		WNMG080408-MF	8.7	12.7	4.76	5.16	0.8					●	●	▲	●				
		WNMG080412-MF	8.7	12.7	4.76	5.16	1.2					●	●	▲	●				

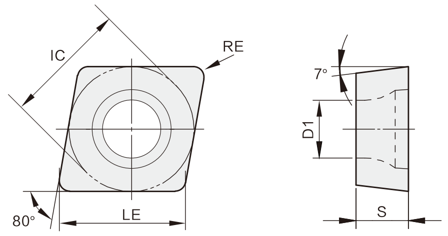
车削用刀片 / 负角型 Turning Insert (Negative) WN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	P OC2025	P OC2115	P OC2125	M OC4315	M OP1205	M OP1215	M OP1315	K OC3105	K OC3215	K OC3115D	S OP1105
	粗加工 Roughing	WNMG080408-OPR	8.7	12.7	4.76	5.16	0.8		●	●	▲						●		
		WNMG080412-OPR	8.7	12.7	4.76	5.16	1.2		●	●	▲						●		
	半精加工 Semi finishing	WNMG080404	8.7	12.7	4.76	5.16	0.4		●	●	●					●	▲	●	
		WNMG080408	8.7	12.7	4.76	5.16	0.8		●	●	●					●	▲	●	
		WNMG080412	8.7	12.7	4.76	5.16	1.2		●	●	●					●	▲	●	
	粗加工 Roughing	WNMA060404	6.5	9.525	4.76	3.81	0.4									●	▲	●	
		WNMA060412	6.5	9.525	4.76	3.81	1.2									●	▲	●	
		WNMA080408	8.7	12.7	4.76	5.16	0.8									●	▲	●	
		WNMA080412	8.7	12.7	4.76	5.16	1.2									●	▲	●	
		WNMA080416	8.7	12.7	4.76	5.16	1.6									●	▲	●	

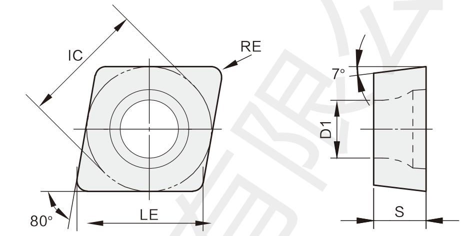
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

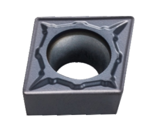
车削用刀片 / 正角型 Turning Insert (Positive) CC□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	CCMT060202-OTF	6.4	6.35	2.38	2.8	0.2			▲	●			▲	●				
		CCMT060204-OTF	6.4	6.35	2.38	2.8	0.4			▲	●			▲	●				
		CCMT060208-OTF	6.4	6.35	2.38	2.8	0.8			▲	●			▲	●				
		CCMT09T304-OTF	9.7	9.525	3.97	4.4	0.4			▲	●			▲	●				
		CCMT09T308-OTF	9.7	9.525	3.97	4.4	0.8			▲	●			▲	●				
		CCMT120404-OTF	12.9	12.7	4.76	5.5	0.4			▲	●			▲	●				
		CCMT120408-OTF	12.9	12.7	4.76	5.5	0.8			▲	●			▲	●				
	半精加工 Semi finishing	CCMT060204-OTM	6.4	6.35	2.38	2.8	0.4			●	▲			●	●		●		
		CCMT060208-OTM	6.4	6.35	2.38	2.8	0.8			●	▲			●	●		●		
		CCMT09T304-OTM	9.7	9.525	3.97	4.4	0.4			●	▲			●	●		●		
		CCMT09T308-OTM	9.7	9.525	3.97	4.4	0.8			●	▲			●	●		●		
		CCMT120404-OTM	12.9	12.7	4.76	5.5	0.4			●	▲			●	●		●		
		CCMT120408-OTM	12.9	12.7	4.76	5.5	0.8			●	▲			●	●		●		

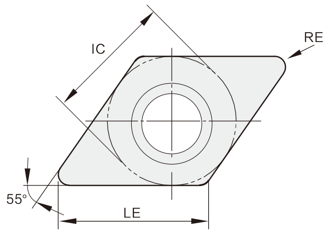
车削用刀片 / 正角型 Turning Insert (Positive) CC□□

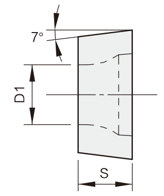


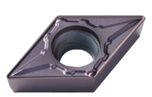
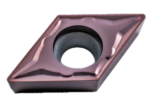
刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	CCMT060202-MSF	6.4	6.35	2.38	2.8	0.2						●	▲	●				
		CCMT060204-MSF	6.4	6.35	2.38	2.8	0.4						●	▲	●				
		CCMT09T304-MSF	9.7	9.525	3.97	4.4	0.4						●	▲	●				
		CCMT09T308-MSF	12.9	12.7	4.76	5.5	0.8						●	▲	●				
		CCMT120404-MSF	12.9	12.7	4.76	5.5	0.4						●	▲	●				
	半精加工 Semi finishing	CCMT060204-GM	6.4	6.35	2.38	2.8	0.4			●	▲			▲	●				
		CCMT060208-GM	6.4	6.35	2.38	2.8	0.8			●	▲			▲	●				
		CCMT09T304-GM	9.7	9.525	3.97	4.4	0.4			●	▲			▲	●				
		CCMT09T308-GM	9.7	9.525	3.97	4.4	0.8			●	▲			▲	●				
		CCMT120404-GM	12.9	12.7	4.76	5.5	0.4			●	▲			▲	●				
		CCMT120408-GM	12.9	12.7	4.76	5.5	0.8			●	▲			▲	●				
	粗加工 Roughing	CCMT060208-OTR	6.4	6.35	2.38	2.8	0.8			●	▲						▲	●	
		CCMT09T304-OTR	9.7	9.525	3.97	4.4	0.4			●	▲						▲	●	
		CCMT09T308-OTR	9.7	9.525	3.97	4.4	0.8			●	▲						▲	●	
		CCMT120408-OTR	12.9	12.7	4.76	5.5	0.8			●	▲						▲	●	
		CCMT120412-OTR	12.9	12.7	4.76	5.5	1.2			●	▲						▲	●	

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

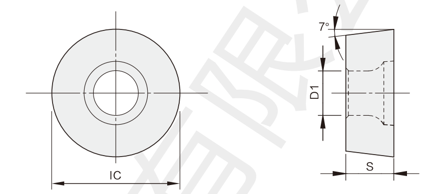
车削用刀片 / 正角型 Turning Insert (Positive) DC□□





刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	M OC4315	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	精加工 Finishing	DCMT070204-OTF	7.8	6.35	2.38	2.8	0.4			▲	●			▲	●				
		DCMT070208-OTF	7.8	6.35	2.38	2.8	0.8			▲	●			▲	●				
		DCMT11T302-OTF	11.6	9.525	3.97	4.4	0.2			▲	●			▲	●				
		DCMT11T304-OTF	11.6	9.525	3.97	4.4	0.4			▲	●			▲	●				
		DCMT11T308-OTF	11.6	9.525	3.97	4.4	0.8			▲	●			▲	●				
	半精加工 Semi finishing	DCMT070204-OTM	7.8	6.35	2.38	2.8	0.4			●	▲			●	●		●		
		DCMT070208-OTM	7.8	6.35	2.38	2.8	0.8			●	▲			●	●		●		
		DCMT11T304-OTM	11.6	9.525	3.97	4.4	0.4			●	▲			●	●		●		
		DCMT11T308-OTM	11.6	9.525	3.97	4.4	0.8			●	▲			●	●		●		
		DCMT070204-GM	7.8	6.35	2.38	2.8	0.4			●	▲			▲	●				
		DCMT070208-GM	7.8	6.35	2.38	2.8	0.8			●	▲			▲	●				
		DCMT11T304-GM	11.6	9.525	3.97	4.4	0.4			●	▲			▲	●				
		DCMT11T308-GM	11.6	9.525	3.97	4.4	0.8			●	▲			▲	●				
	粗加工 Roughing	DCMT11T304-OTR	11.6	9.525	3.97	4.4	0.4			●	▲						▲	●	
		DCMT11T308-OTR	11.6	9.525	3.97	4.4	0.8			●	▲						▲	●	
		DCMT11T312-OTR	11.6	9.525	3.97	4.4	1.2			●	▲						▲	●	

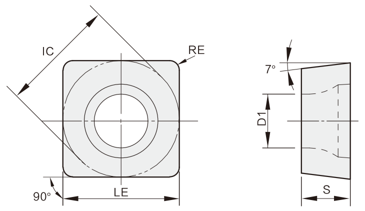
车削用刀片 / 正角型 Turning Insert (Positive) RC□□

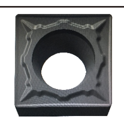


刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	M OC4315	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	半精加工 Semi finishing	RCMT0803MO	8.0	8.0	3.18	3.4			●		▲	▲							
		RCMT1606MO	16	16	6.35	5.5			●		▲	▲							
	半精-粗加工 Semi finishing-roughing	RCMX0803MO	8.0	8.0	3.18	3.4			●		▲	▲					●		
		RCMX1003MO	10	10	3.18	3.6			●		▲	▲					●		
		RCMX1204MO	12	12	4.76	4.4			●		▲	▲					●		
		RCMX1606MO	16	16	6.35	5.5			●		▲	▲					●		
		RCMX2006MO	20	20	6.35	6.5			●		▲	▲					●		
		RCMX2507MO	25	25	7.94	7.2			●		▲	▲					●		
		RCMX3209MO	32	32	9.52	9.5			●		▲	▲					●		

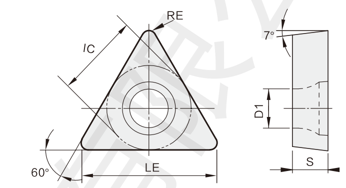
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

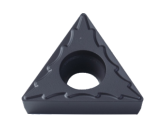
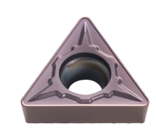
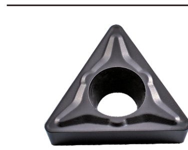
车削用刀片 / 正角型 Turning Insert (Positive) SC□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	SCMT09T304-OTF	9.525	9.525	3.97	4.4	0.4			▲	●			▲	●				
	精加工 Finishing	SCMT09T308-OTF	9.525	9.525	3.97	4.4	0.8			▲	●			▲	●				
	精加工 Finishing	SCMT120404-OTF	12.7	12.7	4.76	5.5	0.4			▲	●			▲	●				
	半精加工 Semi finishing	SCMT09T304-OTM	9.525	9.525	3.97	4.4	0.4			●	▲			●	●		●		
	半精加工 Semi finishing	SCMT09T308-OTM	9.525	9.525	3.97	4.4	0.8			●	▲			●	●		●		
	半精加工 Semi finishing	SCMT120404-OTM	12.7	12.7	4.76	5.5	0.4			●	▲			●	●		●		
	半精加工 Semi finishing	SCMT120408-OTM	12.7	12.7	4.76	5.5	0.8			●	▲			●	●		●		
	半精加工 Semi finishing	SCMT120412-OTM	12.7	12.7	4.76	5.5	1.2			●	▲			●	●		●		
	半精加工 Semi finishing	SCMT09T304-GM	9.525	9.525	3.97	4.4	0.4			●	▲			▲	●				
	半精加工 Semi finishing	SCMT09T308-GM	9.525	9.525	3.97	4.4	0.8			●	▲			▲	●				
	粗加工 Roughing	SCMT09T304-OTR	9.525	9.525	3.97	4.4	0.4			●							▲	●	
	粗加工 Roughing	SCMT09T308-OTR	9.525	9.525	3.97	4.4	0.8			●							▲	●	
	粗加工 Roughing	SCMT120404-OTR	12.7	12.7	4.76	5.5	0.4			●							▲	●	
	粗加工 Roughing	SCMT120408-OTR	12.7	12.7	4.76	5.5	0.8			●							▲	●	
	粗加工 Roughing	SCMT120412-OTR	12.7	12.7	4.76	5.5	1.2			●							▲	●	

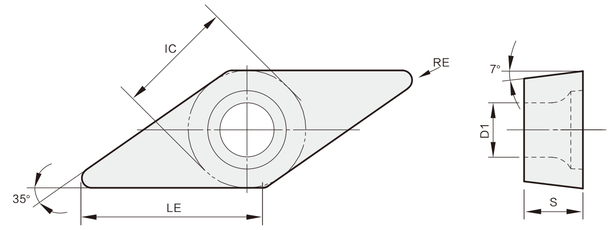
车削用刀片 / 正角型 Turning Insert (Positive) TC□□

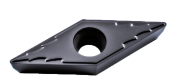
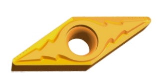


刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4315	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	TCMT110202-OTF	11	6.35	2.38	2.8	0.2			▲	●			▲	●				
	精加工 Finishing	TCMT110204-OTF	11	6.35	2.38	2.8	0.4			▲	●			▲	●				
	精加工 Finishing	TCMT16T304-OTF	16.5	9.525	3.97	4.4	0.4			▲	●			▲	●				
	精加工 Finishing	TCMT16T308-OTF	16.5	9.525	3.97	4.4	0.8			▲	●			▲	●				
	半精加工 Semi finishing	TCMT090204-OTM	9.6	5.56	2.38	2.5	0.4			●	▲			●	●		●		
	半精加工 Semi finishing	TCMT090208-OTM	9.6	5.56	2.38	2.5	0.8			●	▲			●	●		●		
	半精加工 Semi finishing	TCMT110204-OTM	11	6.35	2.38	2.8	0.4			●	▲			●	●		●		
	半精加工 Semi finishing	TCMT110208-OTM	11	6.35	2.38	2.8	0.8			●	▲			●	●		●		
	半精加工 Semi finishing	TCMT16T304-OTM	16.5	9.525	3.97	4.4	0.4			●	▲			●	●		●		
	半精加工 Semi finishing	TCMT16T308-OTM	16.5	9.525	3.97	4.4	0.8			●	▲			●	●		●		
	半精加工 Semi finishing	TCMT16T312-OTM	16.5	9.525	3.97	4.4	1.2			●	▲			●	●		●		
	半精加工 Semi finishing	TCMT110204-GM	11	6.35	2.38	2.8	0.4			●	▲			▲	●				
	半精加工 Semi finishing	TCMT110208-GM	11	6.35	2.38	2.8	0.8			●	▲			▲	●				
	半精加工 Semi finishing	TCMT16T304-GM	16.5	9.525	3.97	4.4	0.4			●	▲			▲	●				
	半精加工 Semi finishing	TCMT16T308-GM	16.5	9.525	3.97	4.4	0.8			●	▲			▲	●				
	粗加工 Roughing	TCMT16T304-OTR	16.5	9.525	3.97	4.4	0.4			●	▲						▲	●	
	粗加工 Roughing	TCMT16T308-OTR	16.5	9.525	3.97	4.4	0.8			●	▲						▲	●	
	粗加工 Roughing	TCMT16T312-OTR	16.5	9.525	3.97	4.4	1.2			●	▲						▲	●	
	粗加工 Roughing	TCMT220408-OTR	22	12.7	4.76	5.5	0.8			●	▲						▲	●	

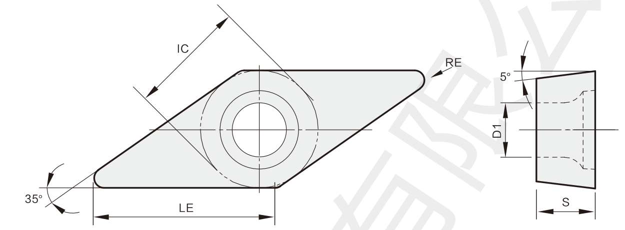
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

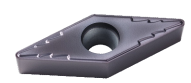
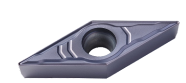
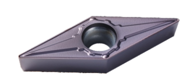
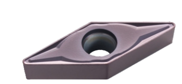
车削用刀片 / 正角型 Turning Insert (Positive) VC□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	OK6110	M OC4225	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	精加工 Finishing	VCMT110302-OTF	11	6.35	3.18	2.8	0.2			▲	●				▲	●				
		VCMT110304-OTF	11	6.35	3.18	2.8	0.4			▲	●				▲	●				
		VCMT160404-OTF	16.5	9.525	4.76	4.4	0.4			▲	●				▲	●				
		VCGT160408-OSF	16.5	9.525	4.76	4.4	0.8													●
	半精加工 Semi finishing	VCMT160404-OTM	16.5	9.525	4.76	4.4	0.4			●	▲				●	●		●		
		VCMT160408-OTM	16.5	9.525	4.76	4.4	0.8			●	▲				●	●		●		
		VCMT160408-OSM	16.5	9.525	4.76	4.4	0.8													●

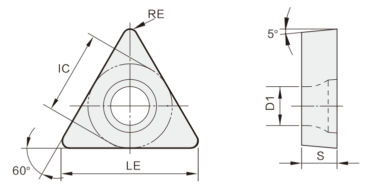
车削用刀片 / 正角型 Turning Insert (Positive) VB□□



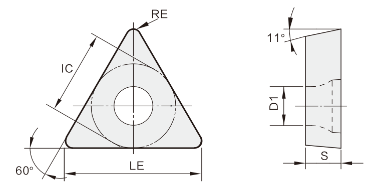
刀片外形 Insert Shape		型号 Type	尺寸 Dimension LE	IC	S	D1	RE	P OC2015	OC2025	OC2115	OC2125	OK6110	M OC4225	OP1205	OP1215	OP1315	K OC3105	OC3215	OC3115D	S OP1105
	精加工 Finishing	VBMT160404-OTF	16.5	9.525	4.76	4.4	0.4			▲	●				▲	●				
		VBMT160408-OTF	16.5	9.525	4.76	4.4	0.8			▲	●				▲	●				
	半精加工 Semi finishing	VBMT110304-OTM	11	6.35	3.18	2.8	0.4			●	▲				●	●		●		
		VBMT110308-OTM	11	6.35	3.18	2.8	0.8			●	▲				●	●		●		
		VBMT160404-OTM	16.5	9.525	4.76	4.4	0.4			●	▲				●	●		●		
		VBMT160408-OTM	16.5	9.525	4.76	4.4	0.8			●	▲				●	●		●		
		VBMT160412-OTM	16.5	9.525	4.76	4.4	1.2			●	▲				●	●		●		
		VBMT160404-OSM	16.5	9.525	4.76	4.4	0.4			●	▲				●	●		●		
		VBMT160408-OSM	16.5	9.525	4.76	4.4	0.8			●	▲				●	●		●		
		VBMT160404-GM	16.5	9.525	4.76	4.4	0.4			●	▲				▲	●				●
		VBMT160408-GM	16.5	9.525	4.76	4.4	0.8			●	▲				▲	●				●
	粗加工 Roughing	VBMT160404-OTR	16.5	9.525	4.76	4.4	0.4			●	▲							▲	●	
		VBMT160408-OTR	16.5	9.525	4.76	4.4	0.8			●	▲							▲	●	
		VBMT160412-OTR	16.5	9.525	4.76	4.4	1.2			●	▲							▲	●	

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

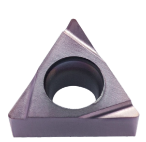
车削用刀片 / 正角型 Turning Insert (Positive) TB□□ TP□□



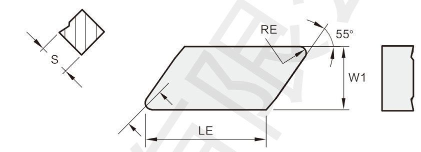
TB



TP

刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P					M				K			S
			LE	IC	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OK6110	OC4225	OP1205	OP1215	OP1315	OC3105	OC3215	OC3115D	OP1105
	精加工 Finishing	TBGH060202L	6.4	3.97	2.38	2.3	0.2					▲		●						
		TBGH060202R	6.4	3.97	2.38	2.3	0.2					▲		●						
		TBGH060204L	6.4	3.97	2.38	2.3	0.4					▲		●						
		TBGH060204R	6.4	3.97	2.38	2.3	0.4					▲		●						
		TPGH080202L	8.2	4.76	2.38	2.4	0.2					▲		●						
		TPGH080204L	8.2	4.76	2.38	2.4	0.4					▲		●						
		TPGH090202L	9.6	5.56	2.38	2.8	0.2					▲		●						
		TPGH090204L	9.6	5.56	2.38	2.8	0.4					▲		●						
		TPGH110302L	11	6.35	3.18	3.18	0.2					▲		●						
		TPGH110304L	11	6.35	3.18	3.18	0.4					▲		●						
		TPGH11T302L	11	6.35	3.97	3.18	0.2					▲		●						
		TPGH11T302R	11	6.35	3.97	3.18	0.2					▲		●						
		TPGH11T304L	11	6.35	3.97	3.18	0.4					▲		●						
		TPGH11T304R	11	6.35	3.97	3.18	0.4					▲		●						

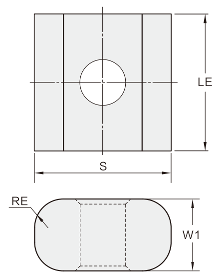
车削用刀片 / 正角型 Turning Insert (Positive) KN□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P					M			K		
			LE	W1	S	D1	RE	OC2015	OC2025	OC2115	OC2125		OC4225	OP1215	OP1205	OC3105	OC3215	OC3115D
	半精加工 Semi finishing	KNUX160405L11	16.2	9.525	4.76	2.2	0.5		●		●			●				
		KNUX160405R11	16.2	9.525	4.76	2.2	0.5		●		●			●				

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

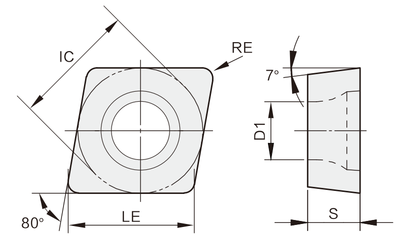
轮毂加工 Heavy Duty Machining

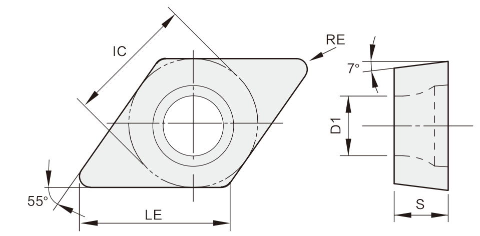


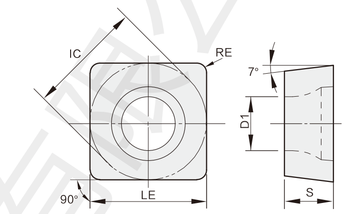
刀片外形 Insert Shape		型号 Type	尺寸 Dimension					P				M			K		
			LE	W1	S	D1	RE	OC2015	OC2025	OC2115	OC2125	OC4225	OP1215	OP1205	OC3105	OC3215	OC3115D
	重载加工 Heavy Duty Machining	175.32−191940−22	19.1	10	19.1	6.35	4.0	●	●		●						
		175.32−191940−24	19.1	10	19.1	6.35	4.0	●	●		●						
		175.32−191940−28	19.1	10	19.1	6.35	4.0	●	●		●						

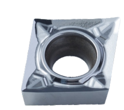
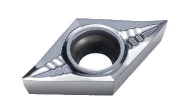
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

铝加工刀片 Insert for Aluminum Cutting CC□□ DC□□ SC□□

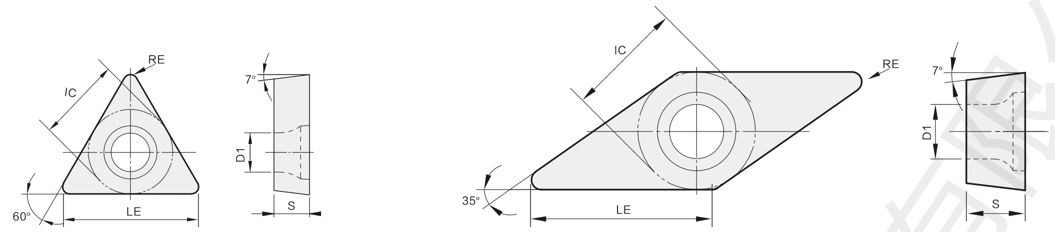


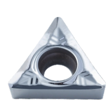
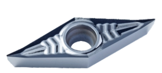




刀片外形 Insert Shape		型号 Type	尺寸 Dimension					涂层牌号 Grade
			LE	IC	S	D1	RE	
	精加工 Finishing	CCGX060202−NL	6.4	6.35	2.38	2.8	0.2	OK434
		CCGX060204−NL	6.4	6.35	2.38	2.8	0.4	
		CCGX09T302−NL	9.7	9.525	3.97	4.4	0.2	
		CCGX09T304−NL	9.7	9.525	3.97	4.4	0.4	
		CCGX09T308−NL	9.7	9.525	3.97	4.4	0.8	
		CCGX120404−NL	12.9	12.7	4.76	5.5	0.4	
		CCGX120408−NL	12.9	12.7	4.76	5.5	0.8	
		DCGX070202−NL	7.8	6.35	2.38	2.8	0.2	OK434
		DCGX070204−NL	7.8	6.35	2.38	2.8	0.4	
		DCGX11T302−NL	11.6	9.525	3.97	4.4	0.2	
		DCGX11T304−NL	11.6	9.525	3.97	4.4	0.4	
		DCGX11T308−NL	11.6	9.525	3.97	4.4	0.8	
		SCGX09T304−NL	9.525	9.525	3.97	4.4	0.4	OK434
		SCGX09T308−NL	9.525	9.525	3.97	4.4	0.8	
		SCGX120408−NL	12.7	12.7	4.76	5.5	0.8	

铝加工刀片 Insert for Aluminum Cutting TC□□ VC□□



刀片外形 Insert Shape		型号 Type	尺寸 Dimension					涂层牌号 Grade
			LE	IC	S	D1	RE	
	精加工 Finishing	TCGX090204-NL	9.6	5.56	2.38	2.5	0.4	OK434
		TCGX110202-NL	11	6.35	2.38	2.8	0.2	
		TCGX110204-NL	11	6.35	2.38	2.8	0.4	
		TCGX16T304-NL	16.5	9.525	3.97	4.4	0.4	
		TCGX16T308-NL	16.5	9.525	3.97	4.4	0.8	
		VCGX110302-NL	11	6.35	3.18	2.8	0.2	OK434
		VCGX110304-NL	11	6.35	3.18	2.8	0.4	
		VCGX160402-NL	16.5	9.525	4.76	4.4	0.2	
		VCGX160404-NL	16.5	9.525	4.76	4.4	0.4	
		VCGX160408-NL	16.5	9.525	4.76	4.4	0.8	
		VCGX160412-NL	16.5	9.525	4.76	4.4	1.2	
		VCGX220530-NL	22	12.7	5.56	5.5	3	

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

系列总称代号 Application Code

QC H V 03 02 R 05 — MP

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

刀片座型号 Tools holder type

QC **H** V 03 02 R 05 — MP

代号 Symbol	宽度（mm） Width	刀柄 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

刃口数量代号 Edge Number

QC H **V** 03 02 R 05 — MP

代号 Symbol	刃口数量 Edge Number
W/D	2
V/S	1

刃宽代号 Cutting Edge Width

QC H V **03** 02 R 05 — MP

代号 Symbol	宽度（mm） Width
02	2
03	3

刀尖圆弧半径代号 Corner Radius

QC H V 03 **02** R 05 — MP

代号 Symbol	圆角 Corner Radius
02	R0.2
03	R0.3
04	R0.4
05	R0.5
08	R0.8

切削方向代号 Cutting Direction

QC H V 03 02 **R** 05 — MP

代号 Symbol	宽度（mm） Width
R	右 Right
L	左 Left
N	双向 Neutral

刀片角度(度) Insert Angle(degree)

QC H V 03 02 R **05** — MP

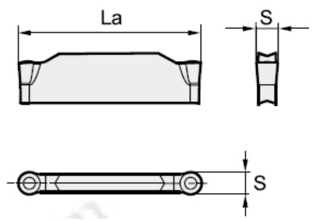
代号 Symbol	角度 Angle
05	5°
07	7°

断屑槽型代号 Chip Breaker

QC H V 03 02 R 05 — **MP**

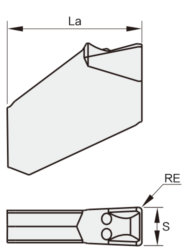
MP	MG
	

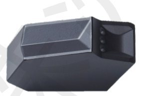
仿形车削刀片 Profile turning Inserts QR□□



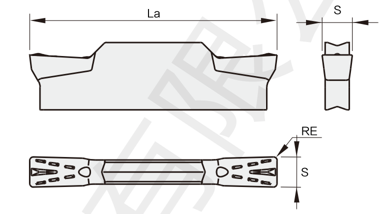
刀片外形 Insert Shape	型号 Type	尺寸 Dimension			P			M			K		
		$S_0^{+0.1}$	RE	最大切深 La_{MAX}	OP2202	OP2302	OC2025	OP1302	OP1215	OP1205	OP2302	OP2202	
	QRFW025-MP	2.5		20.5			●			●			
	QRGW03-MP	3		20.5			●			●			
	QRHW04-MP	4		25.5			●			●			
	QRJW05-MP	5		25.5			●			●			
	QRKW06-MP	6		25.5			●			●			

切断刀片 Part Off Turning Insert



刀片外形 Insert Shape	型号 Type	尺寸 Dimension			P			M			K		
		$S_0^{+0.1}$	RE	最大切深 La_{MAX}	OP2202	OP2302	OC2025	OP1302	OP1215	OP1205	OP2302	OP2202	
	ZQMX3N11-1E	3.1	0.3	11			●			●			
	ZQMX4N11-1E	4.1	0.3	11			●			●			
	ZQMX5N11-1E	5.1	0.3	11			●			●			
	ZQMX6N11-1E	6.4	0.3	11			●			●			

切断切槽刀片 Parting and Grooving inserts QT□□



刀片外形 Insert Shape	型号 Type	尺寸 Dimension			P			M			K		
		$S_0^{+0.1}$	RE	最大切深 La_{MAX}	OP2202	OP2302	OC2025	OP1302	OP1215	OP1205	OP2302	OP2202	
	QTED02503N-MG	2.5	0.3	20.5			●			●			
	QTFD0303N-MG	3	0.3	20.5			●			●			
	QTGD0404N-MG	4	0.4	25.5			●			●			
	QTHD0504N-MG	5	0.4	25.5			●			●			
	QTKD0608N-MG	6	0.8	25.5			●			●			

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

螺纹刀片命名规则 Threading Turning insert Naming Rules

左右代号 Cutting direction

R/LT 16 01 G A 60 M

RT	LT
右刀 right hand	左刀 left hand

刀片尺寸 Insert size

R/LT 16 01 G A 60 M

L(mm)	IC(mm)	L(mm)	IC(mm)
6	3.97	16	9.525
8	4.76	22	12.7
11	6.35	27	15.875

齿数代号 Number of teeth

R/LT 16 01 G A 60 M

01	N
单齿 Single-teeth	N齿 N-teeth

刀片类型 Insert type

R/LT 16 01 G A 60 M

代号 Symbol	类型 type
G	外螺纹 External threading
L	内螺纹 Internal threading

螺距代号 Pitch width

R/LT 16 01 G A 60 M

	A	AG	G	N	Q		
mm	0.5-1.5	1.0-3.0	1.75-3.0	3.5-5.0	5.5-6.0		
TPI	48-16	26-10	14-8	7-5	4.5-4		

螺纹刀片命名规则 Threading Turning insert Naming Rules

刀片牙形代号 Thread profile

R/LT 16 01 G A 60 M

代号 Symbol	刀片牙形 Thread profile
55	55° V牙形 55° general pitch threads
60	60° V牙形 60° general pitch threads
ISO	ISO米制全牙形 ISO metric threads
UN	美制全牙形 United threads
W	惠氏全牙形 Whitworth threads
BSPT	BSPT全牙形 British standard taper pipe threads
NPT	NPT全牙形 NPT American standard taper pipe threads
UNJ	UNJ全牙形 UNJ American standard aerospace and aviation threads
RD	DIN405圆牙形 30° DIN405 round threads
APIRD	石油管螺纹刀片 Petroleum pipeline threads
TR	Trapeze30° 103 30° ISO metric threads
ACME	ACME梯形 29° American standard ACME threads
STACME	矮牙ACME梯形 29° American standard STACME threads

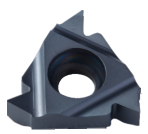
制作方式 Production method

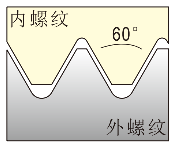
R/LT 16 01 G A 60 M

A	M
全压制 full pressing	全磨制 full ground

螺纹车刀片 Threading Insert

60° V牙形螺纹刀片 60° general pitch threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹
it is suitable for all machining

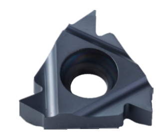
▶ 标准 Standard

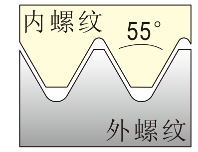
▶ 公差等级 Tolerance grade

外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT0601G-A60M	0.5-1.25	48-16	R/LT0601L-A60M	0.5-1.25	48-20
R/LT1601G-A60M	0.5-1.5	48-16	R/LT0801L-A60M	0.5-1.5	48-16
R/LT1601G-AG60M	0.5-1.5	26-8	R/LT1101L-A60M	0.5-1.5	48-16
R/LT1601G-G60M	0.5-3.0	14-8	R/LT1101L-AG60M	1.0-2.5	26-9
R/LT2201G-N60M	0.5-1.5	7-5	R/LT1601L-A60M	0.5-1.5	48-16
R/LT2701G-Q60M	0.5-3.0	4.5-4	R/LT1601L-AG60M	1.0-3.0	26-8
			R/LT1601L-G60M	1.75-3.0	14-8
			R/LT2201L-N60M	3.5-5.0	7-5
			R/LT2701L-Q60-M	5.5-6.0	4.5-4

螺纹车刀片 Threading Insert

55° V牙形螺纹刀片 55° general pitch threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹
it is suitable for all machining

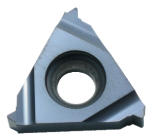
▶ 标准 Standard

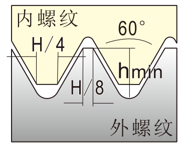
▶ 公差等级 Tolerance grade

外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
			R/LT0601L-A55M	0.5-1.25	48-20
			R/LT0801L-A55M	0.5-1.5	48-16
R/LT1101G-A55M	0.5-1.5	48-16	R/LT1101L-A55M	0.5-1.5	48-16
			R/LT1101L-AG55M	1.0-2.5	26-9
R/LT1601G-A55M	0.5-1.5	48-16	R/LT1601L-A55M	0.5-1.5	48-16
R/LT1601G-AG55M	1.0-3.0	26-8	R/LT1601L-AG55M	1.0-3.0	26-8
R/LT1601G-G55M	1.75-3.0	14-8	R/LT1601L-G55M	1.75-3.0	14-8
R/LT2201G-N55M	3.5-5.0	7-5	R/LT2201L-N55M	3.5-5.0	7-5
R/LT2701G-Q55M	5.5-6.0	4.5-4	R/LT2701L-Q55M	5.5-6.0	4.5-4

螺纹车刀片 Threading Insert

ISO 米制螺纹刀片 ISO metric threads





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹

it is suitable for all machining

▶ 标准 Standard

MR262(DIN13)

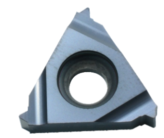
▶ 公差等级 Tolerance grade

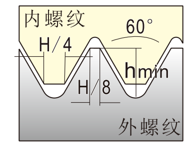
6g/6H

外螺纹 external thread				内螺纹 internal thread			
全磨制型号 ground type	A 型号 A type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	A 型号 A type	适用螺距 applicative pitch mm	TPI
				R/LT0601L-050ISOM		0.5	0.29
				R/LT0601L-075ISOM		0.75	0.43
				R/LT0601L-100ISOM		1.00	0.58
				R/LT0601L-125ISOM		1.25	0.72
				R/LT0801L-050ISOM		0.5	0.29
				R/LT0801L-075ISOM		0.75	0.43
				R/LT0801L-100ISOM		1.00	0.58
				R/LT0801L-125ISOM		1.25	0.72
				R/LT0801L-150ISOM		1.50	0.87
				R/LT0801L-175ISOM		1.75	1.01
R/LT1101G-050ISOM		0.50	0.31	R/LT1101L-050ISOM		0.50	0.29
R/LT1101G-075ISOM		0.75	0.46	R/LT1101L-075ISOM		0.75	0.43
R/LT1101G-080ISOM		0.8	0.49	R/LT1101L-080ISOM		0.8	0.46
R/LT1101G-100ISOM		1.00	0.61	R/LT1101L-100ISOM		1.00	0.58
R/LT1101G-125ISOM		1.25	0.77	R/LT1101L-125ISOM		1.25	0.72
R/LT1101G-150ISOM		1.50	0.92	R/LT1101L-150ISOM		1.50	0.87
R/LT1101G-175ISOM		1.75	1.07	R/LT1101L-175ISOM		1.75	1.01
R/LT1101G-200ISOM		2.00	1.23	R/LT1101L-200ISOM		2.00	1.15
R/LT1601G-050ISOM		0.50	0.31	R/LT1601L-050ISOM		0.50	0.29
R/LT1601G-075ISOM		0.75	0.46	R/LT1601L-075ISOM		0.75	0.43
R/LT1601G-080ISOM		0.80	0.49	R/LT1601L-080ISOM		0.80	0.46
R/LT1601G-100ISOM		1.00	0.61	R/LT1601L-100ISOM		1.00	0.58
R/LT1601G-125ISOM		1.25	0.77	R/LT1601L-125ISOM		1.25	0.72
R/LT1601G-150ISOM	RT1601G-150ISOA	1.50	0.92	R/LT1601L-150ISOM	RT1601L-150ISOA	1.50	0.87
R/LT1601G-175ISOM		1.75	1.07	R/LT1601L-175ISOM		1.75	1.01
R/LT1601G-200ISOM	RT1601G-200ISOA	2.00	1.23	R/LT1601L-200ISOM	RT1601L-200ISOA	2.00	1.15
R/LT1601G-250ISOM	RT1601G-250ISOA	2.50	1.53	R/LT1601L-250ISOM	RT1601L-250ISOA	2.50	1.44
R/LT1601G-300ISOM	RT1601G-300ISOA	3.00	1.84	R/LT1601L-300ISOM	RT1601L-300ISOA	3.00	1.73
R/LT1601G-350ISOM		3.50	2.15	R/LT1601L-350ISOM		3.50	2.02
R/LT2201G-350ISOM		3.50	2.15	R/LT2201L-350ISOM		3.50	2.02
R/LT2201G-400ISOM		4,00	2.45	R/LT2201L-400ISOM		4,00	2.31
R/LT2201G-450ISOM		4.5	2.76	R/LT2201L-450ISOM		4.5	2.60
R/LT2201G-500ISOM		5.00	3.07	R/LT2201L-500ISOM		5.00	2.89
R/LT2701G-550ISOM		5.50	3.37	R/LT2701L-550ISOM		5.50	3.17
R/LT2701G-600ISOM		6.00	3.68	R/LT2701L-600ISOM		6.00	3.46

螺纹车刀片 Threading Insert

Un美制螺纹刀片 United threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹

it is suitable for all machining

▶ 标准 Standard

ANSI B1. 1:74

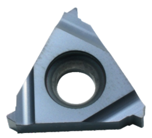
▶ 公差等级 Tolerance grade

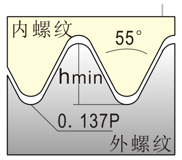
2A/2B

外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
			R/LT0601L-28UNM	28	0.52
			R/LT0601L-24UNM	24	0.61
			R/LT0601L-20UNM	20	0.73
			R/LT0601L-18UNM	18	0.81
			R/LT0801L-28UNM	28	0.52
			R/LT0801L-24UNM	24	0.61
			R/LT0801L-20UNM	20	0.73
			R/LT0801L-18UNM	18	0.81
			R/LT0801L-16UNM	16	0.92
R/LT1101G-28UNM	28	0.56	R/LT1101L-28UNM	28	0.52
R/LT1101G-24UNM	24	0.65	R/LT1101L-24UNM	24	0.61
R/LT1101G-20UNM	20	0.78	R/LT1101L-20UNM	20	0.73
R/LT1101G-18UNM	18	0.87	R/LT1101L-18UNM	18	0.81
R/LT1101G-16UNM	16	0.97	R/LT1101L-16UNM	16	0.92
R/LT1101G-14UNM	14	1.11	R/LT1101L-14UNM	14	1.05
R/LT1101G-12UNM	12	1.30	R/LT1101L-12UNM	12	1.22
R/LT1601G-48UNM	48	0.30	R/LT1601L-48UNM	48	0.31
R/LT1601G-40UNM	40	0.39	R/LT1601L-40UNM	40	0.37
R/LT1601G-32UNM	32	0.49	R/LT1601L-32UNM	32	0.46
R/LT1601G-28UNM	28	0.56	R/LT1601L-28UNM	28	0.52
R/LT1601G-24UNM	24	0.65	R/LT1601L-24UNM	24	0.61
R/LT1601G-20UNM	20	0.78	R/LT1601L-20UNM	20	0.73
R/LT1601G-18UNM	18	0.87	R/LT1601L-18UNM	18	0.81
R/LT1601G-16UNM	16	0.97	R/LT1601L-16UNM	16	0.92
R/LT1601G-14UNM	14	1.11	R/LT1601L-14UNM	14	1.05
R/LT1601G-12UNM	12	1.30	R/LT1601L-12UNM	12	1.22
R/LT1601G-11UNM	11	1.42	R/LT1601L-11UNM	11	1.28
R/LT1601G-10UNM	10	1.56	R/LT1601L-10UNM	10	1.47
R/LT1601G-9UNM	9	1.73	R/LT1601L-9UNM	9	1.63
R/LT1601G-8UNM	8	1.95	R/LT1601L-8UNM	8	1.83
R/LT2201G-7UNM	7	2.22	R/LT2201L-7UNM	7	2.09
R/LT2201G-6UNM	6	2.60	R/LT2201L-6UNM	6	2.44
R/LT2201G-5UNM	5	3.12	R/LT2201L-5UNM	5	2.93
R/LT2701G-4.5UNM	4.5	3.46	R/LT2701L-4.5UNM	4.5	3.26
R/LT2701G-4UNM	4	3.89	R/LT2701L-4UNM	4	3.67

螺纹车刀片 Threading Insert

W惠氏螺纹刀片 Whitworth threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹

it is suitable for all machining

▶ 标准 Standard

B.S.84:1956,
DIN259,ISO228/1:1982

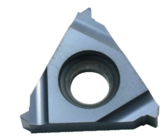
▶ 公差等级 Tolerance grade

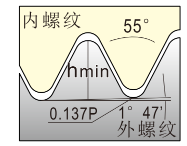
中级A

外螺纹 external thread				内螺纹 internal thread			
全磨制型号 ground type	A 型号 A type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	A 型号 A type	适用螺距 applicative pitch mm	TPI
				R/LT0601L-28WM		28	0.58
				R/LT0601L-24WM		24	0.68
				R/LT0601L-20WM		20	0.51
				R/LT0601L-19WM		19	0.90
				R/LT0801L-28WM		28	0.58
				R/LT0801L-24WM		24	0.68
				R/LT0801L-20WM		20	0.81
				R/LT0801L-19WM		19	0.90
				R/LT0801L-16WM		16	1.02
R/LT1101G-28WM		28	0.58	R/LT1101L-28WM		28	0.58
R/LT1101G-24WM		24	0.68	R/LT1101L-24WM		24	0.68
R/LT1101G-20WM		20	0.81	R/LT1101L-20WM		20	0.81
R/LT1101G-19WM		19	0.90	R/LT1101L-19WM		19	0.90
R/LT1101G-16WM		16	1.02	R/LT1101L-16WM		16	1.02
R/LT1101G-14WM		14	1.16	R/LT1101L-14WM		14	1.16
R/LT1101G-11WM		11	1.48	R/LT1101L-11WM		11	1.48
R/LT1601G-48WM		48	0.34	R/LT1601L-48WM		48	0.34
R/LT1601G-40WM		40	0.41	R/LT1601L-40WM		40	0.41
R/LT1601G-32WM		32	0.51	R/LT1601L-32WM		32	0.51
R/LT1601G-28WM		28	0.58	R/LT1601L-28WM		28	0.58
R/LT1601G-26WM		26	0.63	R/LT1601L-26WM		26	0.63
R/LT1601G-24WM		24	0.68	R/LT1601L-24WM		24	0.68
R/LT1601G-20WM		20	0.81	R/LT1601L-20WM		20	0.81
R/LT1601G-19WM		19	0.90	R/LT1601L-19WM		19	0.90
R/LT1601G-16WM		16	1.02	R/LT1601L-16WM		16	1.02
R/LT1601G-14WM	RT1601G-14WA	14	1.16	R/LT1601L-14WM	RT1601L-14WA	14	1.16
R/LT1601G-12WM		12	1.36	R/LT1601L-12WM		12	1.36
R/LT1601G-11WM	RT1601G-11WA	11	1.48	R/LT1601L-11WM	RT1601L-11WA	11	1.48
R/LT1601G-10WM		10	1.63	R/LT1601L-10WM		10	1.63
R/LT1601G-9WM		9	1.81	R/LT1601L-9WM		9	1.81
R/LT1601G-8WM		8	2.03	R/LT1601L-8WM		8	2.03
R/LT2201G-7WM		7	2.41	R/LT2201L-7WM		7	2.41
R/LT2201G-6WM		6	2.71	R/LT2201L-6WM		6	2.71
R/LT2201G-5WM		5	3.25	R/LT2201L-5WM		5	3.25
R/LT2701G-4.5WM		4.5	3.61	R/LT2701L-4.5WM		4.5	3.61
R/LT2701G-4WM		4	4.07	R/LT2701L-4WM		4	4.07

螺纹车刀片 Threading Insert

BSPT英制锥管螺纹刀片 British standard taper pipe threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹

it is suitable for all machining

▶ 标准 Standard

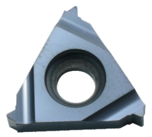
B.S.21:1985

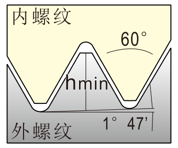
▶ 公差等级 Tolerance grade

外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
			R/LT0601L-28BSPTM	28	0.58
			R/LT0801L-28BSPTM	28	0.58
			R/LT0801L-19BSPTM	19	0.86
			R/LT1101L-19BSPTM	19	0.86
			R/LT1101L-14BSPTM	14	1.16
			R/LT1101L-11BSPTM	11	1.48
R/LT1601G-28BSPTM	28	0.58	R/LT1601L-28BSPTM	28	0.58
R/LT1601G-19BSPTM	19	0.86	R/LT1601L-19BSPTM	19	0.86
R/LT1601G-14BSPTM	14	1.16	R/LT1601L-14BSPTM	14	1.16
R/LT1601G-11BSPTM	11	1.48	R/LT1601L-11BSPTM	11	1.48

螺纹车刀片 Threading Insert

NPT 英制锥管螺纹刀片 NPT American standard taper pipe threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹
it is suitable for all machining

▶ 标准 Standard

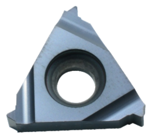
USAS B2.1:1968

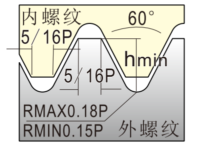
▶ 公差等级 Tolerance grade

外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
			R/LT0601L-27NPTM	27	0.66
			R/LT0801L-27NPTM	27	0.66
			R/LT0801L-18NPTM	18	1.01
			R/LT1101L-18NPTM	18	1.01
			R/LT1101L-14NPTM	14	1.33
R/LT1601G-27NPTM	27	0.66			
R/LT1601G-18NPTM	18	1.01	R/LT1601L-18NPTM	18	1.01
R/LT1601G-14NPTM	14	1.33	R/LT1601L-14NPTM	14	1.33
R/LT1601G-11.5NPTM	11.5	1.64	R/LT1601L-11.5NPTM	11.5	1.64
R/LT1601G-8NPTM	8	2.42	R/LT1601L-8NPTM	8	2.42

螺纹车刀片 Threading Insert

UNJ 美制航空螺纹刀片 UNJ American standard aerospace and aviation threads





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹
it is suitable for all machining

▶ 标准 Standard

MIL-D-8879C

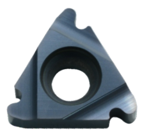
▶ 公差等级 Tolerance grade

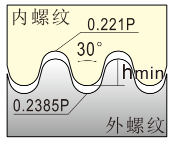
3A/3B

外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
			R/LT0601L-18UNJM	18	0.74
			R/LT0801L-16UNJM	16	0.83
			R/LT0801L-14UNJM	14	0.95
			R/LT1101L-12UNJM	12	1.11
R/LT1601G-40UNJM	40	0.37			
R/LT1601G-36UNJM	36	0.41			
R/LT1601G-32UNJM	32	0.46			
R/LT1601G-28UNJM	28	0.52			
R/LT1601G-24UNJM	24	0.61			
R/LT1601G-20UNJM	20	0.73			
R/LT1601G-18UNJM	18	0.81			
R/LT1601G-16UNJM	16	0.92			
R/LT1601G-14UNJM	14	1.05			
R/LT1601G-12UNJM	12	1.22			
R/LT1601G-10UNJM	10	1.47	R/LT1601L-10UNJM	10	1.33
R/LT1601G-8UNJM	8	1.83	R/LT1601L-8UNJM	8	1.66
R/LT2201G-7UNJM	7	2.09	R/LT2201L-7UNJM	7	1.90
R/LT2201G-6UNJM	6	2.44	R/LT2201L-6UNJM	6	2.21
R/LT2201G-5UNJM	5	2.93	R/LT2201L-5UNJM	5	2.66
R/LT2701G-4.5UNJM	4.5	3.26	R/LT2701L-4.5UNJM	4.5	2.95
R/LT2701G-4UNJM	4	3.67	R/LT2701L-4UNJM	4	3.32

螺纹车刀片 Threading Insert

RD DIN405圆管30° 螺纹刀片 30° DIN405 round threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹
it is suitable for all machining

▶ 标准 Standard

DIN405

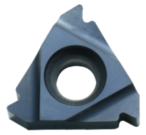
▶ 公差等级 Tolerance grade

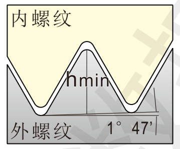
7h/7H

外螺纹 external thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601G-10RDM	10	1.27
R/LT1601G-8RDM	8	1.59
R/LT1601G-6RDM	6	2.12
R/LT2201G-6RDM	6	2.12
R/LT2201G-4RDM	4	3.18

内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601L-10RDM	10	1.27
R/LT1601L-8RDM	8	1.59
R/LT1601L-6RDM	6	2.12
R/LT2201L-6RDM	6	2.12
R/LT2201L-4RDM	4	3.18

APIRD 石油管螺纹刀片 Petroleum pipeline threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹
it is suitable for all machining

▶ 标准 Standard

STD.5B.1979

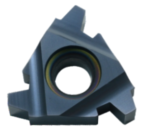
▶ 公差等级 Tolerance grade

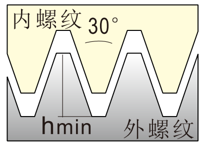
外螺纹 external thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601G-10APIRDM	10	1.41
R/LT1601G-8APIRDM	8	1.81

内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601L-10APIRDM	10	1.41
R/LT1601L-8APIRDM	8	1.81

螺纹车刀片 Threading Insert

TR 公制30° 梯形螺蚊刀片 30° ISO metric threading insert





▶ 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹
it is suitable for all machining

▶ 标准 Standard

DIN103

▶ 公差等级 Tolerance grade

7e/7H

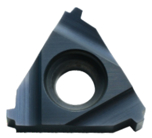
外螺纹 external thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601G-1.5TRM	1.5	0.90
R/LT1601G-2TRM	2	1.25
R/LT1601G-3TRM	3	1.75
R/LT2201G-4TRM	4	2.25
R/LT2201G-5TRM	5	2.75
R/LT2701G-6TRM	6	3.50
R/LT2701G-7TRM	7	4.00

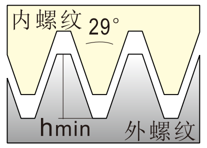
内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601L-1.5TRM	1.5	0.90
R/LT1601L-2TRM	2	1.25
R/LT1601L-3TRM	3	1.75
R/LT2201L-4TRM	4	2.25
R/LT2201L-5TRM	5	2.75
R/LT2701L-6TRM	6	3.50
R/LT2701L-7TRM	7	4.00

株洲欧科亿数控精密刀具有限公司

螺纹车刀片 Threading Insert

ACME 美制29° 梯形螺纹刀片 29° American ACME threading insert





► 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹

it is suitable for all machining

► 标准 Standard

ANSI B1.5:1988

► 公差等级 Tolerance grade

3G

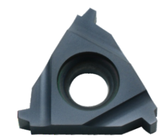
外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601G-12ACMEM	12	1.19			
R/LT1601G-10ACMEM	10	1.52			
R/LT1601G-8ACMEM	8	1.84	R/LT1601L-8ACMEM	8	1.84
R/LT2201G-6ACMEM	6	2.37	R/LT2201L-6ACMEM	6	2.37
R/LT2201G-5ACMEM	5	2.79	R/LT2201L-5ACMEM	5	2.79
R/LT2701G-4ACMEM	4	3.43	R/LT2701L-4ACMEM	4	3.43

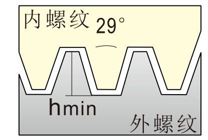
B
C
D

A/a

螺纹车刀片 Threading Insert

STACME 矮牙美制29° 梯形螺蚊刀片 29° American STACME threading insert





► 刀片用途 Application for insert

用于所有机械加工的一般用途螺纹

it is suitable for all machining

► 标准 Standard

ANSI B1. 8:1988

► 公差等级 Tolerance grade

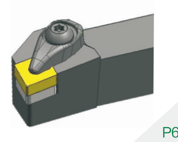
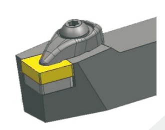
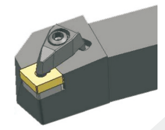
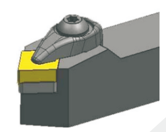
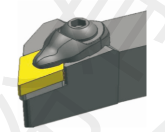
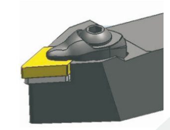
2G

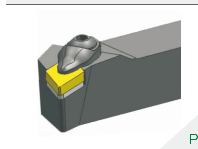
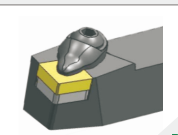
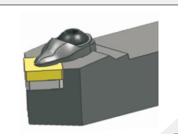
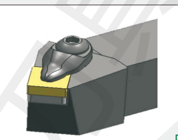
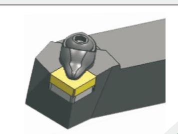
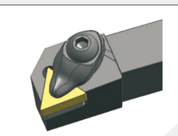
外螺纹 external thread			内螺纹 internal thread		
全磨制型号 ground type	适用螺距 applicative pitch mm	TPI	全磨制型号 ground type	适用螺距 applicative pitch mm	TPI
R/LT1601G-12STACMEM	12	0.76			
R/LT1601G-10STACMEM	10	1.02			
R/LT1601G-8STACMEM	8	1.21			
R/LT2201G-6STACMEM	6	1.52			
R/LT2201G-5STACMEM	5	1.78	R/LT2201L-5STACMEM	5	1.78
R/LT2701G-4STACMEM	4	2.16	R/LT2701L-4STACMEM	4	2.16
R/LT2701G-3STACMEM	3	2.79	R/LT2701L-3STACMEM	3	2.79

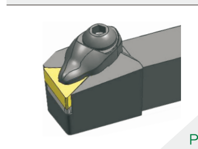
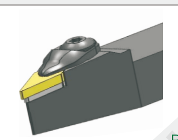
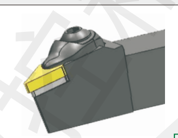
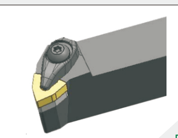
B
C
D

车削刀具一览表(外圆) External Turning Tools Lists

D类 夹紧方式 Wedge Clamping

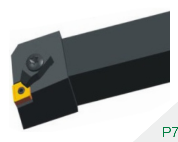
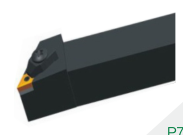
DCLNR/L	DCBNR/L	DCKNR/L	DCMNN	DDJNR/L	DDPNN
 P67	 P67	 P68	 P68	 P69	 P69

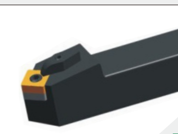
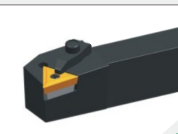
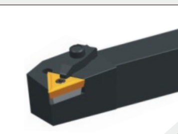
DDQNR/L	DSBNR/L	DSDNN	DSSNR/L	DSKNR/L	DTGNR/L
 P70	 P70	 P71	 P71	 P72	 P72

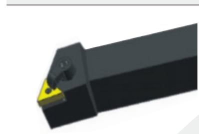
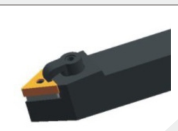
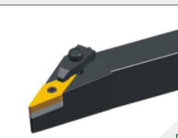
DTFNR/L	DVVNN	DVJNR/L	DWLNR/L
 P73	 P73	 P74	 P74

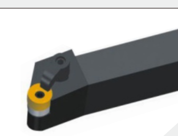
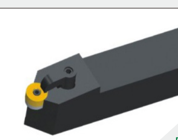
车削刀具一览表(外圆) External Turning Tools Lists

M类 夹紧方式 Top And Hole Clamping

MCLNR/L	MCBNR/L	MCKNR/L	MDJNR/L	MDQNR/L	MSBNR/L
 P75	 P75	 P76	 P76	 P77	 P78

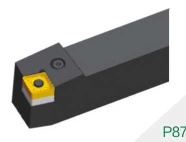
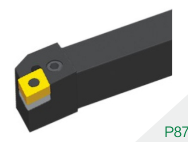
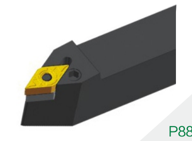
MSRNR/L	MSKNR/L	MSDNN	MSSNR/L	MTGNR/L	MTJNR/L
 P78	 P79	 P79	 P80	 P80	 P81

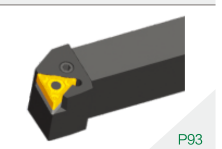
MTJNR/L(B)	MTFNR/L	MTQNR/L	MTENN	MVJNR/L	MVVNN
 P81	 P82	 P82	 P83	 P83	 P84

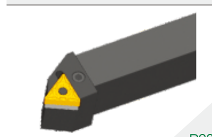
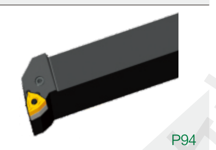
MVUNR/L	MVQNR/L	MWLNR/L	MRGNR/L	MRDNN
 P84	 P85	 P85	 P86	 P86

车削刀具一览表(外圆) External Turning Tools Lists

P类 夹紧方式 Hole clamping

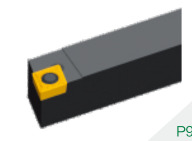
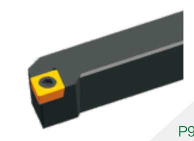
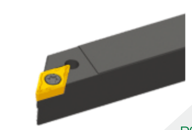
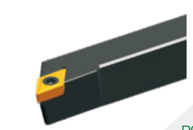
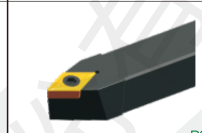
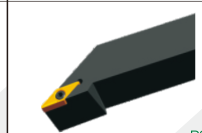
PCBNR/L	PCLNR/L	PDJNR/L	PDNNR/L	PSBNR/L	PSDNN
 P87	 P87	 P88	 P88	 P89	 P89

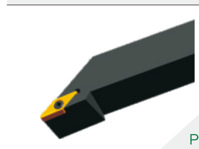
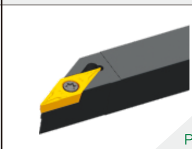
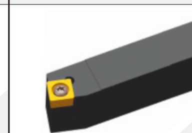
PSKNR/L	PSSNR/L	PRDCN	PRGCR/L	PTGNR/L	PTFNR/L
 P90	 P90	 P91	 P91	 P92	 P93

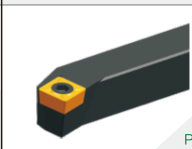
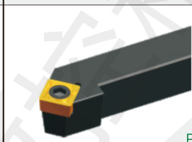
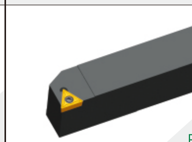
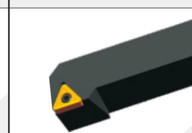
PTTNR/L	PWLNR/L
 P93	 P94

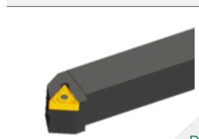
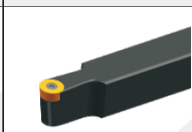
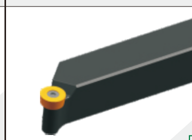
车削刀具一览表(外圆) External Turning Tools Lists

S类 夹紧方式 Screw on

SCACR/L	SCLCR/L	SDACR/L	SDJCR/L	SDNCN	SVJCR/L
 P95	 P95	 P96	 P96	 P97	 P97

SVJBR/L	SVABR/L	SVACR/L	SVVBN	SVVCN	SSBCR/L
 P98	 P98	 P99	 P99	 P100	 P100

SSDCN	SSKCR/L	SSSCR/L	STACR/L	STFCR/L	STGCR/L
 P101	 P101	 P102	 P102	 P103	 P103

STTCR/L	SWACR/L	SRDCN	SRGCR/L	SRACR/L
 P104	 P104	 P105	 P105	 P106

车削刀具一览表(内孔) Internal turning tools lists

M类 夹紧方式 Top and Hole Clamping

MCKNR/L	MCLNR/L	MDQNR/L	MDUNR/L	MDZNR/L	MSKNR/L
P109	P109	P110	P110	P111	P111

MVQNR/L	MVUNR/L	MVWNR/L	MVXNR/L	MWLNR/L	MTFNR/L
P112	P112	P113	P113	P114	P114

MTQNR/L	MTJNR/L	MTUNR/L	MTWNR/L
P115	P115	P116	P116

P类 夹紧方式 Hole Clamping

PCLNR/L	PDSNR/L	PDUNR/L	PSKNR/L	PTFNR/L	PWLNR/L
P117	P117	P118	P118	P119	P119

车削刀具一览表(内孔) Internal turning tools lists

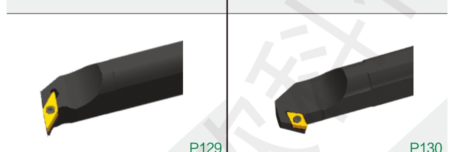
S类 夹紧方式 Screw On

SCLCR/L	SCLCR/L–H	SCKCR/L	SDQCR/L	SDXCR/L	SDWCR/L
P120	P120	P121	P121	P122	P122

SDUCR/L	SDZCR/L	SSKCR/L	SSSCR/L	STFCR/L	STWCR/L
P123	P123	P124	P124	P125	P125

STFPR/L	STUCR/L	SVQCR/L	SVQBR/L	SVUCR/L	SVWCR/L
P126	P126	P127	P127	P128	P128

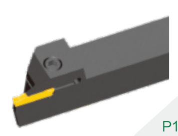
SVXCR/L	SVZCR/L
P129	P130



车削刀具一览表 External Turning Tools Lists

外圆切断、切槽刀具 Extermal Parting and Grooving Tools

QEED1616R/L10



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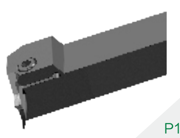
端面切槽、车削刀具 Turning and Face Grooving Tools

QFFD2525R/L10-48H

P133

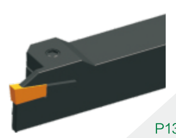
QFFD2525R/L10-48L



P134

ZQ Part Off Cutting Tools

ZQ1616R03



P135

B
C
D

A/b

车削刀具一览表 External Turning Tools Lists

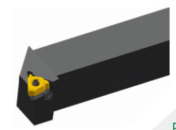
外圆切断的刀板 External Parting Blade

SPB326-S

P136

外螺纹刀具 External Threading Turning Tools

SWR/L1010H11



P137

内螺纹刀具 Internal Threading Turning Tools

SNR/L1010K11

P138

株洲欧科亿数控精密刀具股份有限公司

B
C
D

外圆车刀命名规则 Iso-indexable Insert External Turning Tools Naming Rule

压紧方式 Clamping System

M C L N R 25 25 M 12

P	S
杠杆压紧式 hole clamping	螺钉压紧式 Screw on
M	**C**
复合压紧式 Top and hole clamping	压板压紧式 Top clamping
D	
双重压压紧式 Top clamping	

刀片形状 Insert Shape

M **C** L N R 25 25 M 12

C	D	R
80°	55°	
S	**T**	**V**
90°	60°	35°
W		
80°		

切削方向 Cutting Direction

M C L N **R** 25 25 M 12

R
L
N

刀具形式与主偏角 Holder Style and Leading Angle

M C **L** N R 25 25 M 12

A	B	C	D	E	F
90°	75°	90°	45°	60°	90°
H	**G**	**J**	**K**	**L**	**M**
107°30′	90°	93°	75°	95° 95°	50°
N	**O**	**P**	**Q**	**R**	**S**
63°	117°30′	62°30′	107°30′	75°	45°
T	**U**	**V**	**W**	**X**	
60°	93°	72°30′	60°	120°	

刀片后角 Insert Clearance Angle

M C L **N** R 25 25 M 12

N	0°
B	5°
C	7°
P	11°
D	15°
E	20°

外圆车刀命名规则 Iso-indexable Insert External Turning Tools Naming Rule

刀尖高度 Tools-tip Height

M C L N R **25** 25 M 12

代号	12	16	20	25	32	40	50
高度 HF	12	16	20	25	32	40	50

刀体宽度 Shank Width

M C L N R 25 **25** M 12

代号	12	16	20	25	32	40	50
宽度 B	12	16	20	25	32	40	50

刀具长度 Tool length

M C L N R 25 25 **M** 12

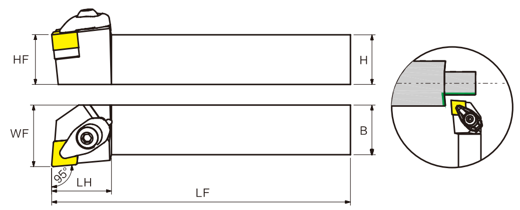
代号	D	E	F	G	H	K	M	P
长度	60	70	80	90	100	125	150	170
代号	Q	R	S	T	U	V	W	
长度	180	200	250	300	350	400	450	

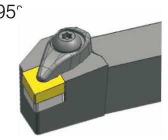
切削刃长度代号 Cutting Edge Length

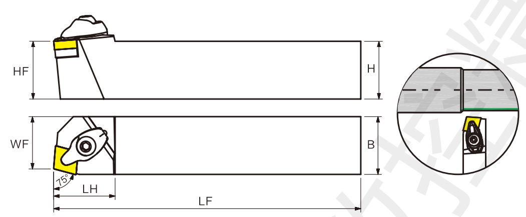
M C L N R 25 25 M **12**

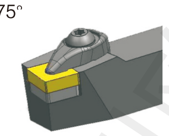
刀片外形 Cutting Tool Shape	C	D	R	S	T	V	W
	80°	55°		90°	60°	35°	80°
内接圆 Inscribed Circle	切削刃长度 Cutting Edge Length						
5.556					09		
6.350	06	07			11		
9.525	09	11	09	09	16	16	
12.700	12	15	12	12	22	22	
15.875	16	19	15	15	27		
19.050	19		19	19	33		
25.400	25		25	25	44		

D类夹紧方式(外圆) D Type External Turning Tool Holders

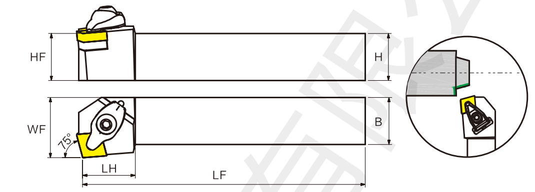


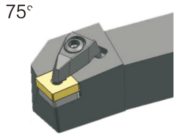
DCLNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
95° 	DCLNR/L 2020K12	20	20	125	20	27	32						
	DCLNR/L 2525M12	25	25	150	25	32	30	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCLNR/L 3232P12	32	32	170	32	39	30						

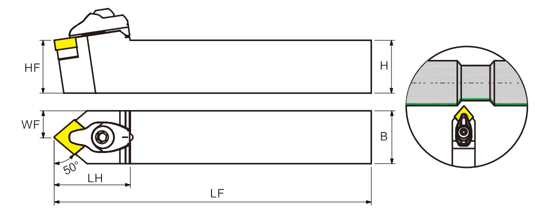


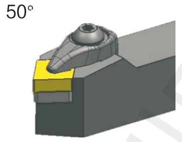
DCBNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
75° 	DCBNR/L 2020K12	20	20	125	20	17	34						
	DCBNR/L 2525M12	25	25	150	25	22	36	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCBNR/L 3232P12	32	32	170	32	29	34						

D类夹紧方式(外圆) D Type External Turning Tool Holders

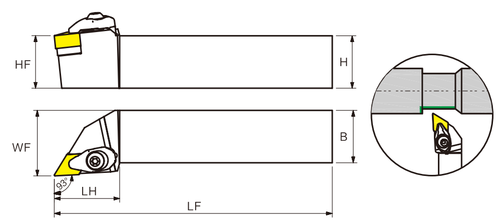


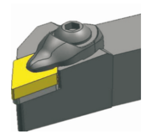
DCKNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
75° 	DCKNR/L 2020K12	20	20	125	20	26	28						
	DCKNR/L 2525M12	25	25	150	25	32	28	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCKNR/L 3232P12	32	32	170	32	39	28						

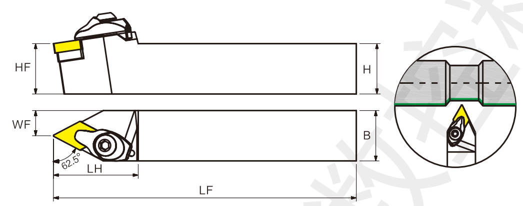


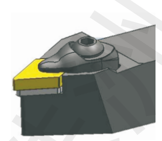
DCMNN	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
50° 	DCMNN 2020K12	20	20	125	20	10	36						
	DCMNN 2525M12	25	25	150	25	12.5	36	CN□□1204□□	MC1204	S4 S3	DCL2612	DM0625	DSP0612
	DCMNN 3232P12	32	32	170	32	16	36						

D类夹紧方式(外圆) D Type External Turning Tool Holders

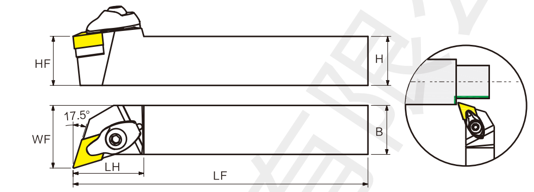


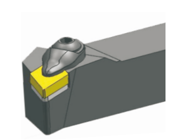
DDJNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
93° 	DDJNR/L2020K11	20	20	125	20	25	32	DN□□1104□□	MD1103	S3	DCL2211	DM0520	DSP0510
	DDJNR/L2525M11	25	25	150	25	30	32						
	DDJNR/L2020K1504	20	20	125	20	25	40	DN□□1504□□	MD1504	S4 S3	DCL2612	DM0625	DSP0612
	DDJNR/L2525M1504	25	25	150	25	31	40						
	DDJNR/L3232P1504	32	32	170	32	39	40						
	DDJNR/L2020K1506	20	20	125	20	25	40	DN□□1506□□					
	DDJNR/L2525M1506	25	25	150	25	31	40						
	DDJNR/L3232P1506	32	32	170	32	39	40						

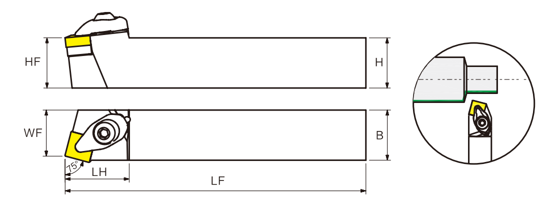


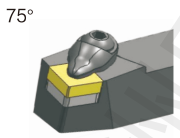
DDPNN	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
62.5° 	DDPNN2020K11	20	20	125	20	10	32	DN□□1104□□	MD1103	S3	DCL2211	DM0520	DSP0510
	DDPNN2525M11	25	25	150	25	12.5	36						
	DDPNN2020K1504	20	20	125	20	10	36	DN□□1504□□	MD1504	S4 S3	DCL2612	DM0625	DSP0612
	DDPNN2525M1504	25	25	150	25	12.5	36						
	DDPNN3232P1504	32	32	170	32	16	36						
	DDPNN2020K1506	20	20	125	20	10	36	DN□□1506□□					
	DDPNN2525M1506	25	25	150	25	12.5	36						
	DDPNN3232P1506	32	32	170	32	16	36						

D类夹紧方式(外圆) D Type External Turning Tool Holders

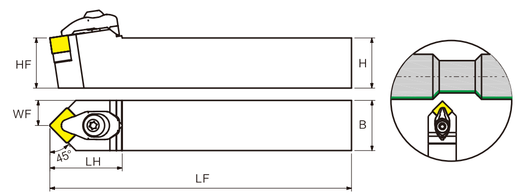


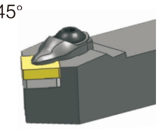
DDQNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
107.5° 	DDQNR/L2020K11	20	20	125	20	25	28	DN□□1104□□	MD1103	S4 S3	DCL2211	DM0520	DSP0510
	DDQNR/L2525M11	25	25	150	25	31	28						
	DDQNR/L2020K1504	20	20	125	20	26	36	DN□□1504□□	MD1504	S4 S3	DCL2612	DM0625	DSP0612
	DDQNR/L2525M1504	25	25	150	25	32	36						
	DDQNR/L3232P1504	32	32	170	32	38	36						
	DDQNR/L2020K1506	20	20	125	20	26	36	DN□□1506□□					
	DDQNR/L2525M1506	25	25	150	25	32	36						
	DDQNR/L3232P1506	32	32	170	32	38	36						

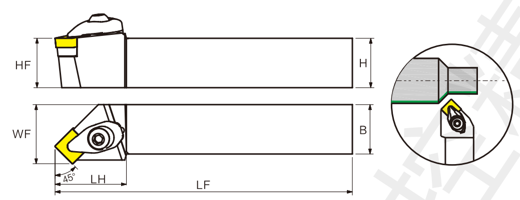


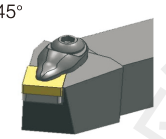
DSBNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
75° 	DSBNR/L 2020K12	20	20	125	20	18	34	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
	DSBNR/L 2525M12	25	25	150	25	23	32						
	DSBNR/L 3232P12	32	32	170	32	30	33						

D类夹紧方式(外圆) D Type External Turning Tool Holders

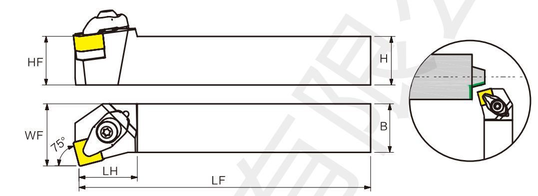


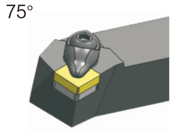
DSDNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
45° 	DSDNN 2020K12	20	20	125	20	10	36	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
	DSDNN 2525M12	25	25	150	25	12.5	36						
	DSDNN 3232P12	32	32	170	32	12.5	36						

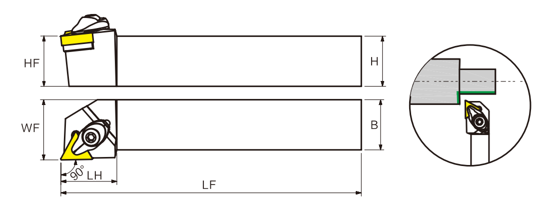


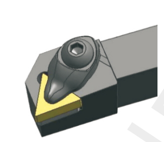
DSSNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
45° 	DSSNR/L 2020K12	20	20	125	20	25	36	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
	DSSNR/L 2525M12	25	25	150	25	30	36						
	DSSNR/L 3232P12	32	32	170	32	38	36						

D类夹紧方式(外圆) D Type External Turning Tool Holders

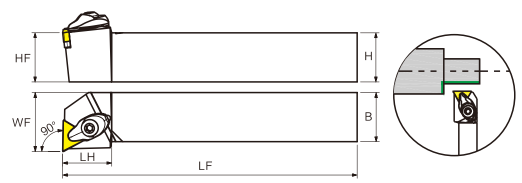


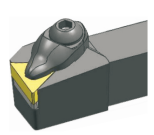
DSKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
75° 	DSKNR/L 2020K12	20	20	125	20	26	28	SN□□1204□□	MS1204	S3 S4	DCL2612	DM0625	DSP0612
	DSKNR/L 2525M12	25	25	150	25	36	28						
	DSKNR/L 3232P12	32	32	170	32	38	32						

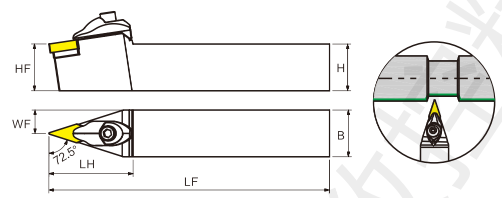


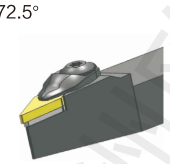
DTGNR	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
90° 	DTGNR 2020K16	20	20	125	20	24	28	TN□□1604□□	MT1603	S3	DCL2211	DM0520	DSP0510
	DTGNR 2525M16	25	25	150	25	30	28						
	DTGNR 3225P16	32	25	170	32	30	28						
	DTGNR 3232P16	32	32	170	32	38	32						

D类夹紧方式(外圆) D Type External Turning Tool Holders

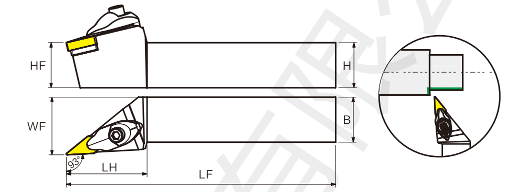


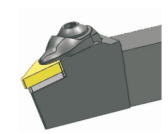
DTFNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
90° 	DTFNR/L 2020K16	20	20	125	20	25	28	TN□□1604□□	MT1603	S3	DCL2211	DM0520	DSP0510
	DTFNR/L 2525M16	25	25	150	25	30	26						
	DTFNR/L 3225P16	32	25	170	32	30	26						
	DTFNR/L 3232P16	32	32	170	32	38	26						

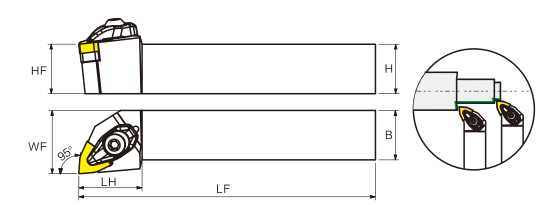


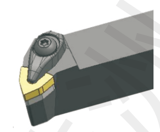
DVVNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
72.5° 	DVVNN2020K16	20	20	125	20	10	45	VN□□1604□□	MV1603	S3	DCL3113	M5X25 (内六角)	DSP0510
	DVVNN2525M16	25	25	150	25	12.5	45						
	DVVNN3225P16	32	25	170	32	12.5	45						
	DVVNN3232P16	32	32	170	32	16	45						

D类夹紧方式(外圆) D Type External Turning Tool Holders

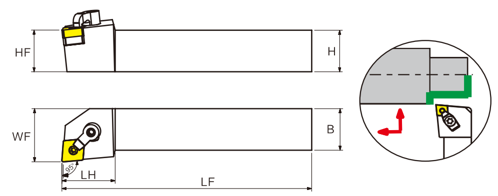


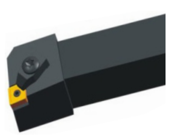
DVJNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
93° 	DVJNR/L 2020K16	20	20	125	20	26	45	VN□□1604□□	MV1603	S3 S4	DCL3113	M5X25	DSP0510
	DVJNR/L 2525M16	25	25	150	25	32	45						
	DVJNR/L 3225P16	32	25	170	32	32	45						
	DVJNR/L 3232P16	32	32	170	32	40	45						

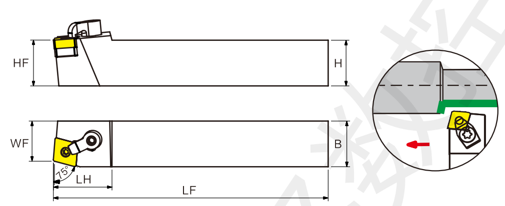


DWLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	扳手 Wrench	压板 Clamp	压板螺钉 Clamping Screw	螺钉 Screw
		H	B	LF	HF	WF	LH						
95° 	DWLNR/L 2020K08	20	20	125	20	25	32	WN□□0804□□	MW0804	S4 S3	DCL2612	DM0625	DSP0612
	DWLNR/L 2525M08	25	25	150	25	32	31						
	DWLNR/L 3225P08	32	25	170	32	32	31						
	DWLNR/L 3232P08	32	32	170	32	39	31						
	DWLNR/L 2020K06	20	20	125	20	25	25	WN□□0603□□	MW0603	S3	DCL2211	DM0520	DSP0510
	DWLNR/L 2525M06	25	25	150	25	30	25						

M类夹紧方式(外圆) M Type External Turning Tool Holders

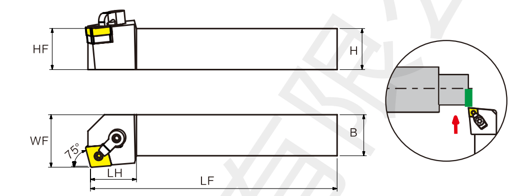


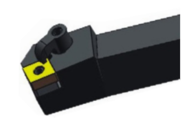
MCLNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
95°	MCLNR/L1616H12	16	16	100	16	21	30	CN□□1204□□	WS061025	MC1204	S3	MCL1814	MSP617
	MCLNR/L2020K12	20	20	125	20	25	28						
	MCLNR/L2525M12	25	25	150	25	32	32		WS081030				
	MCLNR/L3225P12	32	25	170	32	32	32						
	MCLNR/L3232P12	32	32	170	32	39	32						
	MCLNR/L2525M16	25	25	150	25	32	38	CN□□1606□□	WS061030	MC1604	S3	MCL2114	MSP821
	MCLNR/L3225P16	32	25	170	32	33	38						
	MCLNR/L3232P16	32	32	170	32	40	38						
	MCLNR/L3232P19	32	32	170	32	40	43	CN□□1906□□	WS081030	MC1904	S4	MCL2217	MSP1021
	MCLNR/L4040R19	40	40	200	40	50	43						

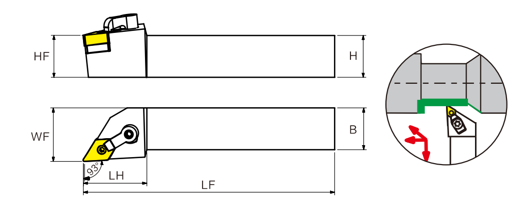


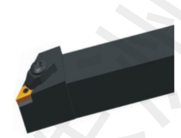
MCBNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
75°	MCBNR/L2020K12	20	20	125	20	17	32	CN□□1204□□	WS061025	MC1204	S3	MCL1814	MSP617
	MCBNR/L2525M12	25	25	150	25	22	32		WS061030				
	MCBNR/L3225P12	32	25	170	32	22	32						
	MCBNR/L2525M16	25	25	150	25	22	36	CN□□1606□□	WS061030	MC1604	S3	MCL2114	MSP822
	MCBNR/L3225P16	32	25	170	32	22	35						
	MCBNR/L3232P16	32	32	170	32	27	35						
	MCBNR/L3232P19	32	32	170	32	27	40	CN□□1906□□	WS081030	MC1904	S4	MCL2217	MSP1022
	MCBNR/L4040R19	40	40	200	40	35	40						

M类夹紧方式(外圆) M Type External Turning Tool Holders

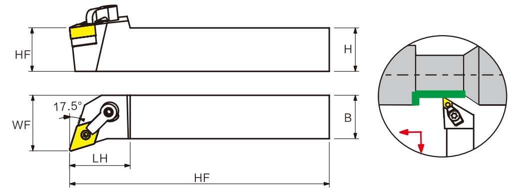


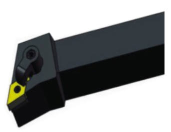
MCKNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
75°	MCKNR/L2020K12	20	20	125	20	25	28	CN□□1204□□	WS061025	MC1204	S3	MCL1814	MSP617
	MCKNR/L2525M12	25	25	150	25	32	28		WS061030				
	MCKNR/L3225P12	32	25	170	32	32	28						
	MCKNR/L2525M16	25	25	150	25	32	30	CN□□1606□□	WS061030	MC1604	S3	MCL2114	MSP821
	MCKNR/L3225P16	32	25	170	32	32	30						
	MCKNR/L3232P16	32	32	170	32	38	30						
	MCKNR/L3232P19	32	32	170	32	40	36	CN□□1906□□	WS081030	MC1904	S4	MCL2217	MSP1021
	MCKNR/L4040R19	40	40	200	40	48	36						



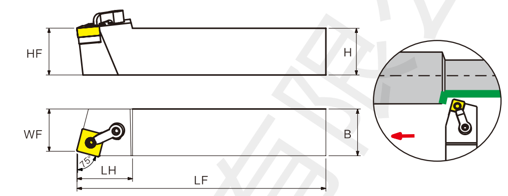
MDJNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
93°	MDJNR/L1616H11	16	16	100	16	20	30	DN□□1104□□	WS061025	MD1103	S2 S3	MCL1814	MSP513
	MDJNR/L2020K11	20	20	125	20	25	32		WS061030				
	MDJNR/L2525M11	25	25	150	25	32	32						
	MDJNR/L3225P11	32	25	170	32	32	32						
	MDJNR/L2020K1504/06	20	20	125	20	25	36	DN□□1504□□ DN□□1506□□	WS061025	MD1504	S3	MCL2114	04:MSP617 06:MSP619
	MDJNR/L2525M1504/06	25	25	150	25	32	38		WS061030				
	MDJNR/L3225P1504/06	32	25	170	32	32	38						
	MDJNR/L3232P1504/06	32	32	170	32	40	38						
	MDJNR/L4040R15	40	40	200	40	48	40	DN□□1506□□					

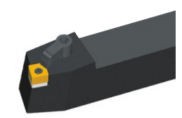
M类夹紧方式(外圆) M Type External Turning Tool Holders

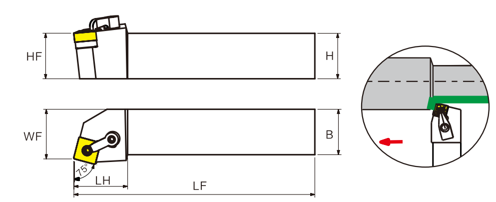


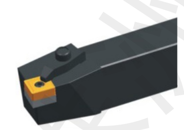
MDQNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
107.5° 	MDQNR/L1616H11	16	16	100	16	21	30	DN□□1104□□	WS061025	MD1103	S2 S3	MCL1814	MSP513
	MDQNR/L2020K11	20	20	125	20	25	32		WS061030				
	MDQNR/L2525M11	25	25	150	25	30	30						
	MDQNR/L3225P11	32	25	170	32	30	30						
	MDQNR/L2020K1504/06	20	20	125	20	27	36	DN□□1504□□	WS061025	MD1504	S3	MCL2114	04:MSP617
	MDQNR/L2525M1504/06	25	25	150	25	32	35	DN□□1506□□	WS061030				06:MSP619
	MDQNR/L3225P1504/06	32	25	170	32	32	35						
	MDQNR/L3232P1504/06	32	32	170	32	40	35						

M类夹紧方式(外圆) M Type External Turning Tool Holders

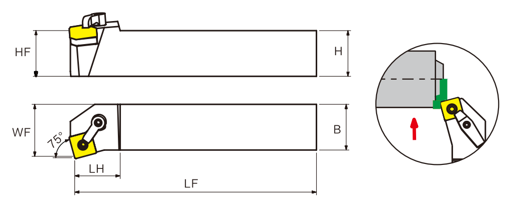


MSBNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
75° 	MSBNR/L2020K12	20	20	125	20	17	34	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSBNR/L2525M12	25	25	150	25	22	32		WS061030				
	MSBNR/L3225P12	32	25	170	32	22	32						
	MSBNR/L2525M15	25	25	150	25	22	38	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821
	MSBNR/L3232P15	32	32	170	32	29	38						
	MSBNR/L3232P19	32	32	170	32	27	45	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021
	MSBNR/L4040R19	40	40	200	40	35	45						
	MSBNR/L4040S25	40	40	250	40	34	60	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229

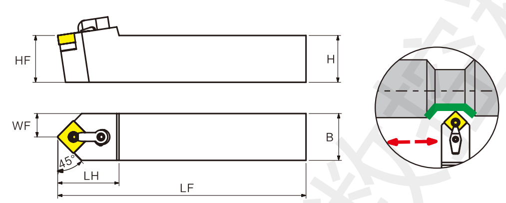


MSRNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
75° 	MSRNR/L2020K12	20	20	125	20	22	32	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSRNR/L2525M12	25	25	150	25	27	32		WS061030				
	MSRNR/L3225P12	32	25	170	32	27	32						
	MSRNR/L2525M15	25	25	150	25	27	38	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821
	MSRNR/L3232P15	32	32	170	32	35	38						
	MSRNR/L3232P19	32	32	170	32	35	45	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021
	MSRNR/L4040R19	40	40	200	40	43	45						
	MSRNR/L4040S25	40	40	250	40	43	55	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229

M类夹紧方式(外圆) M Type External Turning Tool Holders

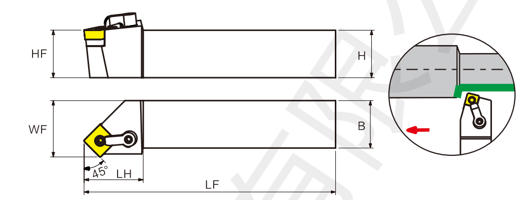


MSKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
75°	MSKNR/L2020K12	20	20	125	20	25	28	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSKNR/L2525M12	25	25	150	25	32	27		WS061030				
	MSKNR/L3225P12	32	25	170	32	32	27						
	MSKNR/L2525M15	25	25	150	25	32	32	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821
	MSKNR/L3232P15	32	32	170	32	38	32						
	MSKNR/L3232P19	32	32	170	32	38	36	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021
	MSKNR/L4040R19	40	40	200	40	50	40						
	MSKNR/L4040S25	40	40	250	40	50	45	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229

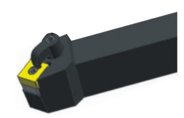


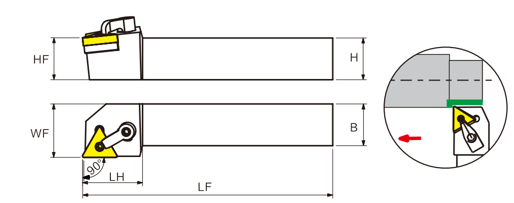
MSDNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
45°	MSDNN2020K12	20	20	125	20	10	34	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSDNN2525M12	25	25	150	25	12.5	34		WS061030				
	MSDNN3225P12	32	25	170	32	12.5	34						
	MSDNN2525M15	25	25	150	25	12.5	42	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821
	MSDNN3225P15	32	32	170	32	16	42						
	MSDNN3232P19	32	32	170	32	16	45	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021
	MSDNN4040R19	40	40	200	40	20	50						
	MSDNN4040S25	40	40	250	40	20	60	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229

M类夹紧方式(外圆) M Type External Turning Tool Holders

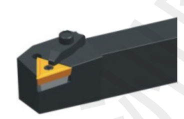


MSSNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
45°	MSSNR/L2020K12	20	20	125	20	25	36	SN□□1204□□	WS061025	MS1204	S3	MCL1814	MSP617
	MSSNR/L2525M12	25	25	150	25	30	36		WS061030				
	MSSNR/L3225P12	32	25	170	32	30	33						
	MSSNR/L3232P12	32	32	170	32	38	35						
	MSSNR/L2525M15	25	25	150	25	30	40	SN□□1506□□	WS061030	MS1504	S3	MCL2114	MSP821
	MSSNR/L3232P15	32	32	170	32	38	40						
	MSSNR/L3232P19	32	32	170	32	38	45	SN□□1906□□	WS081030	MS1904	S4	MCL2217	MSP1021
	MSSNR/L4040R19	40	40	200	40	46	45						
	MSSNR/L4040S25	40	40	250	40	50	60	SN□□2509□□	WS101035	MS2508	S4 S5	MCL3220	MSP1229

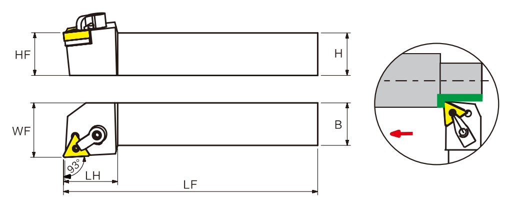


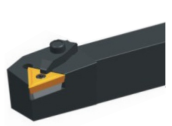


MTGNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
90°	MTGNR/L2020K16	20	20	125	20	25	32	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
	MTGNR/L2525M16	25	25	150	25	32	30		WS061030				
	MTGNR/L3225P16	32	25	170	32	32	30						
	MTGNR/L2525M22	25	25	150	25	32	36	TN□□2204□□	WS061030	MT2204	S3	MCL2114	MSP617
	MTGNR/L3225P22	32	25	170	32	32	36						
	MTGNR/L3232P22	32	32	170	32	38	36						

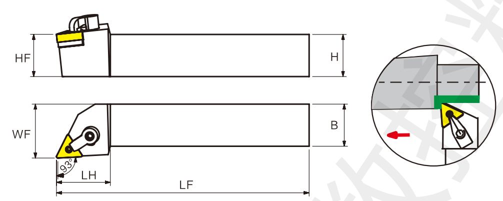


M类夹紧方式(外圆) M Type External Turning Tool Holders



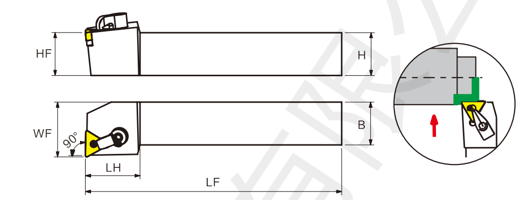


MTJNR/L		型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
93°		MTJNR/L1616H16	16	16	100	16	20	28	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
		MTJNR/L2020K16	20	20	125	20	25	32		WS061030				
		MTJNR/L2525M16	25	25	150	25	32	32						
		MTJNR/L3225P16	32	25	170	32	32	32						
		MTJNR/L3232P16	32	32	170	32	32	32						
		MTJNR/L2525M22	25	25	150	25	32	36	TN□□2204□□	WS061030	MT2204	S3	MCL2114	MSP617
		MTJNR/L3225P22	32	25	170	32	32	36						
		MTJNR/L3232P22	32	32	170	32	38	36						

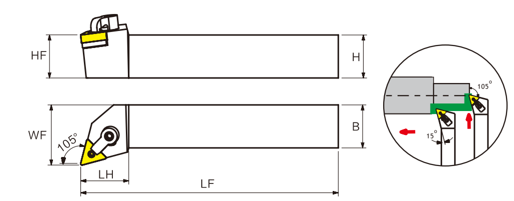


MTJNR/L(B)		型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
93°		MTJNR/L1616H16(B)	16	16	100	16	20	28	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
		MTJNR/L2020K16(B)	20	20	125	20	25	32		WS061030				
		MTJNR/L2525M16(B)	25	25	150	25	32	32						
		MTJNR/L3225P16(B)	32	25	170	32	32	32						
		MTJNR/L3232P16(B)	32	32	170	32	32	32						
		MTJNR/L2525M22(B)	25	25	150	25	32	36	TN□□2204□□	WS061030	MT2204	S3	MCL2114	MSP617
		MTJNR/L3225P22(B)	32	25	170	32	32	36						
		MTJNR/L3232P22(B)	32	32	170	32	38	36						

M类夹紧方式(外圆) M Type External Turning Tool Holders

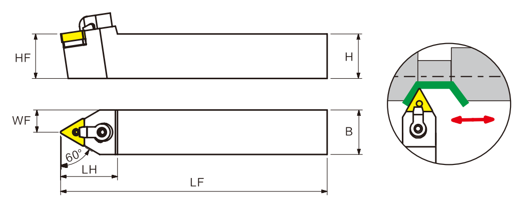


MTFNR/L		型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
90°		MTFNR/L1616H16	16	16	100	16	21	28	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
		MTFNR/L2020K16	20	20	125	20	25	30						
		MTFNR/L2525M16	25	25	150	25	32	32		WS061030				
		MTFNR/L3225P16	32	25	170	32	32	32						
		MTFNR/L3232P16	32	32	170	32	38	32						
		MTFNR/L2525M22	25	25	150	25	32	36	TN□□2204□□	WS061030	MT2204	S3	MCL2114	MSP617
		MTFNR/L3225P22	32	25	170	32	32	36						
		MTFNR/L3232P22	32	32	170	32	38	36						

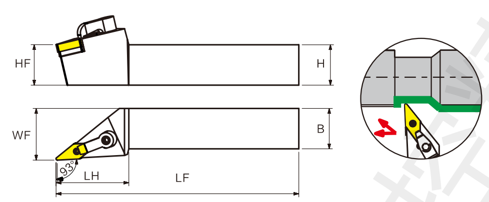


MTQNR/L		型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
105°		MTQNR/L2020K16	20	20	125	20	29	25	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
		MTQNR/L2525M16	25	25	150	25	35	28		WS061030				
		MTQNR/L3225P16	32	25	170	32	35	25						
		MTQNR/L2525M22	25	25	150	25	38	36	TN□□2204□□	WS061030	MT2204	S3	MCL2114	MSP617
		MTQNR/L3232P22	32	32	170	32	46	36						

M类夹紧方式(外圆) M Type External Turning Tool Holders

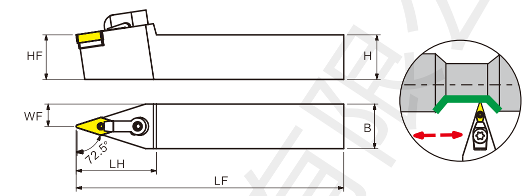


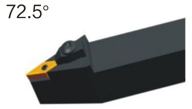
MTENN	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
60° 	MTENN1616H16	16	16	100	16	8	32	TN□□1604□□	WS061025	MT1603	S2 S3	MCL1814	MSP513
	MTENN2020K16	20	20	125	20	10	34						
	MTENN2525M16	25	25	150	25	12.5	32		WS061030				
	MTENN3232P16	32	32	170	32	16	32						

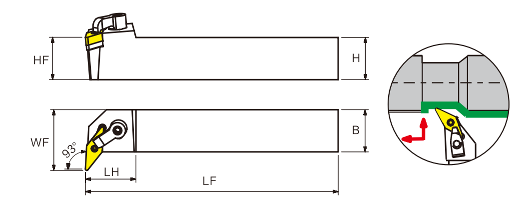


MVJNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
93° 	MVJNR/L1616H16	16	16	100	16	22	43	VN□□1604□□	WS061025	MV1603	S2 S3	MCL2414	MSP513
	MVJNR/L2020K16	20	20	125	20	26	45						
	MVJNR/L2525M16	25	25	150	25	32	45						
	MVJNR/L3225P16	32	25	170	32	32	45		WS061030				
	MVJNR/L3232P16	32	32	170	32	40	45						

M类夹紧方式(外圆) M Type External Turning Tool Holders

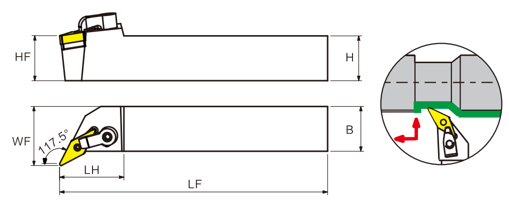


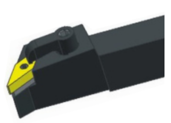
MVVNN	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
72.5° 	MVVNN2020K16	20	20	125	20	10	45	VN□□1604□□	WS061025	MV1603	S2 S3	MCL2414	MSP513
	MVVNN2525M16	25	25	150	25	12.5	45						
	MVVNN3225P16	32	25	170	32	12.5	45		WS061030				
	MVVNN3232P16	32	32	170	32	16	45						

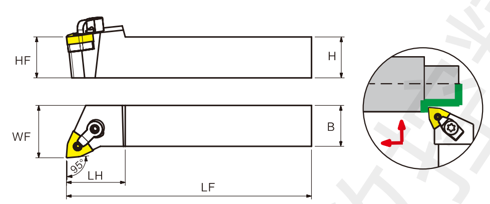


MVUNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
93° 	MVUNR/L1616H16	16	16	100	16	20	45	VN□□1604□□	WS061025	MV1603	S2 S3	MCL2414	MSP513
	MVUNR/L2020K16	20	20	125	20	25	45						
	MVUNR/L2525M16	25	25	150	25	32	45						
	MVUNR/L3225P16	32	25	170	32	32	45		WS061030				
	MVUNR/L3232P16	32	32	170	32	40	45						

M类夹紧方式(外圆) M Type External Turning Tool Holders

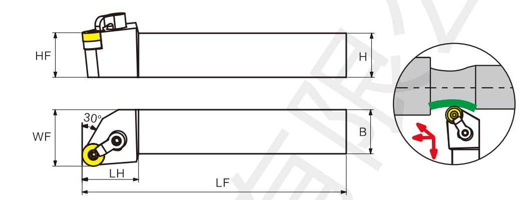


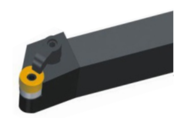
MVQNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
117.5° 	MVQNR/L1616H16	16	16	100	16	24	36		WS061025				
	MVQNR/L2020K16	20	20	125	20	27	36						
	MVQNR/L2525M16	25	25	150	25	33	36	VN□□1604□□	WS061030	MV1603	S2 S3	MCL2114	MSP513
	MVQNR/L3225P16	32	25	170	32	33	36						
	MVQNR/L3232P16	32	32	170	32	40	36						

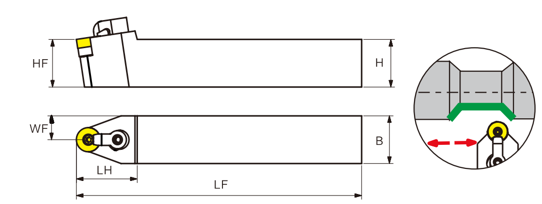


MWLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
95° 	MWLNR/L2020K06	20	20	125	20	25	28	WN□□0604□□	WS061025	MW0603	S2 S3		MSP513
	MWLNR/L2525M06	25	25	150	25	32	30		WS061030				
	MWLNR/L2020K08	20	20	125	20	26	28		WS061025			MCL1814	
	MWLNR/L2525M08	25	25	150	25	32	35	WN□□0804□□	WS061030	MW0804	S3		MSP617
	MWLNR/L3225P08	32	25	170	32	32	35						
	MWLNR/L3232P08	32	32	170	32	40	35						

M类夹紧方式(外圆) M Type External Turning Tool Holders

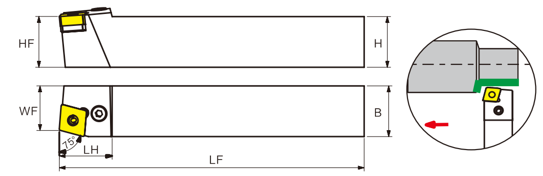


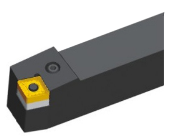
MRGNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
	MRGNR/L2020K12	20	20	125	20	25	28		WS061025				
	MRGNR/L2525M12	25	25	150	25	32	32	RN□□1204□□	WS061030	MR1204	S3	MCL1814	MSP617
	MRGNR/L3225P12	32	25	170	32	32	32						
	MRGNR/L3232P12	32	32	170	32	39	32						

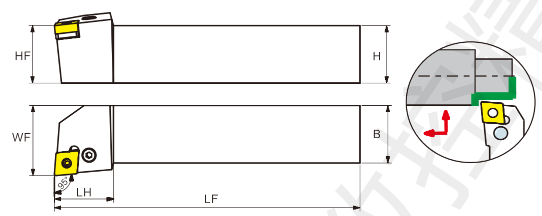


MRDNN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	双头螺钉 Clamping Screw	刀垫 Shim	扳手 Wrench	压板 Clamp	螺钉 Screw
		H	B	LF	HF	WF	LH						
	MRDNN2020K12	20	20	125	20	10	30		WS061025				
	MRDNN2525M12	25	25	150	25	12.5	32	RN□□1204□□	WS061030	MR1204	S3	MCL1814	MSP617
	MRDNN3225P12	32	25	170	32	12.5	30						
	MRDNN3232P12	32	32	170	32	16	30						

P类夹紧方式(外圆) P Type External Turning Tool Holders



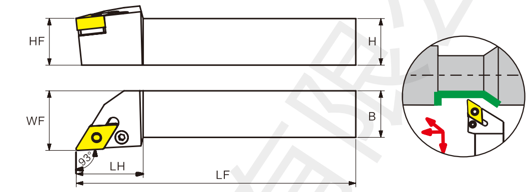
PCBNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
75°	PCBNR/L2020K12	20	20	125	20	17	30	CN□□1204□□	VHX0821	PC12318	S3	LV4	SP4
	PCBNR/L2525M12	25	25	150	25	22	26						
	PCBNR/L3232P12	32	32	170	32	29	27						
	PCBNR/L2525M16	25	25	150	25	22	32	CN□□1606□□	VHX0825	PC16476	S3	LV5	SP5
	PCBNR/L3232P16	32	32	170	32	27	33						
	PCBNR/L3232P19	32	32	170	32	27	38	CN□□1906□□	VHX1027	PC19476	S4	LV6	SP6
	PCBNR/L4040S19	40	40	250	40	35	38						
	PCBNR/L4040S2507	40	40	250	40	37	50	CN□□2507□□	VHX1236	PC25	S5	LV8	SP8
	PCBNR/L4040S2509	40	40	250	40	37	50	CN□□2509□□					

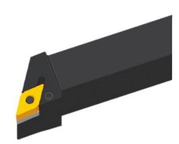


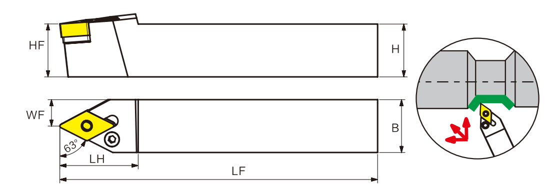
PCLNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
95°	PCLNR/L1616H09	16	16	100	16	20	20	CN□□0903□□	VHX0613	PC09318	S2.5	LV3	SP3
	PCLNR/L2020K09	20	20	125	20	25	22						
	PCLNR/L2525M09	25	25	150	25	32	22						
	PCLNR/L2020K12	20	20	125	20	26	28	CN□□1204□□	VHX0821	PC12318	S3	LV4	SP4
	PCLNR/L2525M12	25	25	150	25	32	28						
	PCLNR/L3232P12	32	32	170	32	39	32						
	PCLNR/L2525M16	25	25	150	25	32	36	CN□□1606□□	VHX0825	PC16476	S3	LV5	SP5
	PCLNR/L3232P16	32	32	170	32	39	36						
	PCLNR/L3232P19	32	32	170	32	40	40	CN□□1906□□	VHX1027	PC19476	S4	LV6	SP6
	PCLNR/L4040S19	40	40	250	40	49	40						
	PCLNR/L4040S2507	40	40	250	40	50	47	CN□□2507□□	VHX1236	PC25	S5	LV8	SP8
	PCLNR/L4040S2509	40	40	250	40	50	47	CN□□2509□□					

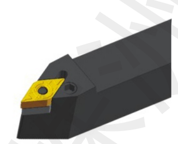
A/b

P类夹紧方式(外圆) P Type External Turning Tool Holders

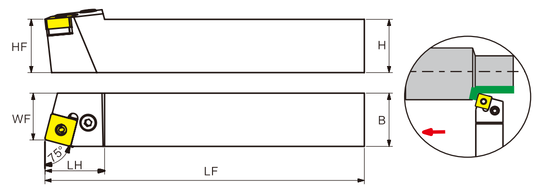


PDJNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
93°	PDJNR/L1616H11	16	16	100	16	20	25	DN□□1104□□	VHX0613	PD11270	S2.5	LV3	SP3
	PDJNR/L2020K11	20	20	125	20	25	25						
	PDJNR/L2525M11	25	25	150	25	30	30						
	PDJNR/L2020K15	20	20	125	20	25	32	DN□□1506□□	VHX0825	PD15318	S3	LV4B	SP4
	PDJNR/L2525M15	25	25	150	25	32	35						
	PDJNR/L3232P15	32	32	170	32	38	35						
	PDJNR/L2020K15-3	20	20	125	20	25	35	DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4
	PDJNR/L2020M15-3	25	25	150	25	32	35						
	PDJNR/L3232P15-3	32	32	170	32	38	35						

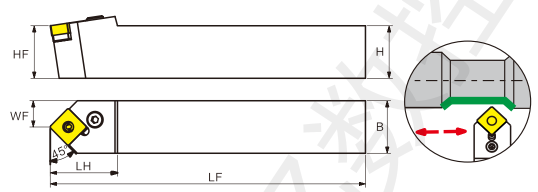


PDNNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
63°	PDNNR/L2020K15	20	20	125	20	8	37	DN□□1506□□	VHX0825	PD15318	S3	LV4B	SP4
	PDNNR/L2525M15	25	25	150	25	12.5	37						
	PDNNR/L3225P15	32	25	170	32	12.5	37						
	PDNNR/L3232P15	32	32	170	32	16	37						
	PDNNR/L2020K15-3	20	20	125	20	8	37	DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4
	PDNNR/L2525M15-3	25	25	150	25	12.5	37						
	PDNNR/L3232P15-3	32	32	170	32	16	37						

P类夹紧方式(外圆) P Type External Turning Tool Holders

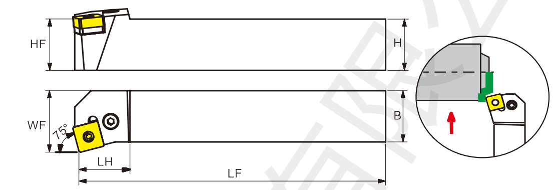


PSBNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
75°	PSBNR/L1616H09	16	16	100	16	13	21	SN□□0903□□	VHX0613	PS09318	S2.5	LV3	SP3
	PSBNR/L2020K09	20	20	125	20	17	23						
	PSBNR/L2020K12	20	20	125	20	17	28	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSBNR/L2525M12	25	25	150	25	22	28						
	PSBNR/L3225P12	32	25	170	32	22	28						
	PSBNR/L3232P12	32	32	170	32	29	28						
	PSBNR/L2525M15	25	25	150	25	22	32	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSBNR/L3232P15	32	32	170	32	28	32						
	PSBNR/L3232P19	32	32	170	32	36	45	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSBNR/L4040S19	40	40	250	40	35	45						
	PSBNR/L4040S2507	40	40	250	40	35	50	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSBNR/L4040S2509	40	40	250	40	35	50	SN□□2509□□		PS25476			

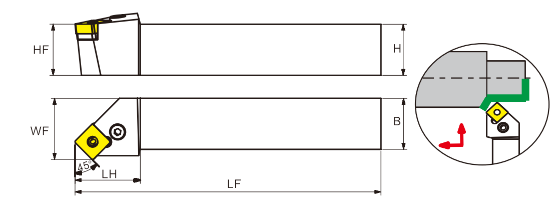


PSDNN	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
45°	PSDNN2020K12	20	20	125	20	10	30	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSDNN2525M12	25	25	150	25	12.5	32						
	PSDNN3232P12	32	32	170	32	16	30						
	PSDNN2525M15	25	25	150	25	12.5	40	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSDNN3232P15	32	32	170	32	16	40						
	PSDNN3232P19	32	32	170	32	16	40	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSDNN4040S19	40	40	250	40	20	40						
	PSDNN4040S2507	40	40	250	40	20	50	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSDNN4040S2509	40	40	250	40	20	50	SN□□2509□□		PS25476			

P类夹紧方式(外圆) P Type External Turning Tool Holders

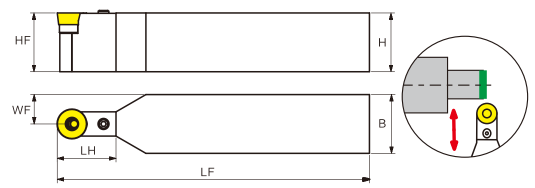


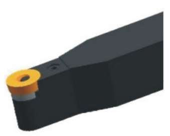
PSKNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
75°	PSKNR/L1616H09	16	16	100	16	20	17	SN□□0903□□	VHX0613	PS09318	S2.5	LV3	SP3
	PSKNR/L2020K09	20	20	125	20	25	20						
	PSKNR/L2020K12	20	20	125	20	25	26	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSKNR/L2525M12	25	25	150	25	30	26						
	PSKNR/L3232P12	32	32	170	32	38	26						
	PSKNR/L2525M15	25	25	150	25	32	32	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSKNR/L3232P15	32	32	170	32	38	32						
	PSKNR/L3232P19	32	32	170	32	38	36	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSKNR/L4040S19	40	40	250	40	48	32						
	PSKNR/L4040S2507	40	40	250	40	50	40	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSKNR/L4040S2509	40	40	250	40	50	40	SN□□2509□□		PS25476			



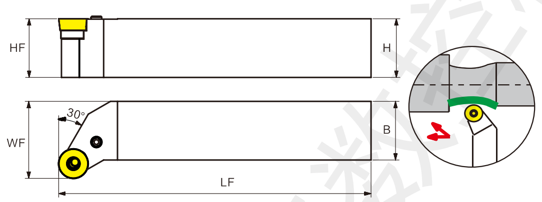
PSSNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
45°	PSSNR/L1616H09	16	16	100	16	18	25	SN□□0903□□	VHX0613	PS09318	S2.5	LV3	SP3
	PSSNR/L2020K12	20	20	125	20	25	28	SN□□1204□□	VHX0821	PS12318	S3	LV4	SP4
	PSSNR/L2525M12	25	25	150	25	30	32						
	PSSNR/L3232P12	32	32	170	32	38	32						
	PSSNR/L2525M15	25	25	150	25	30	35	SN□□1506□□	VHX0825	PS15476	S3	LV5	SP5
	PSSNR/L3232P15	32	32	170	32	38	35						
	PSSNR/L3232P19	32	32	170	32	38	40	SN□□1906□□	VHX1027	PS19476	S4	LV6	SP6
	PSSNR/L4040S19	40	40	250	40	48	50						
	PSSNR/L4040S2507	40	40	250	40	48	50	SN□□2507□□	VHX1236	PS25634	S5	LV8	SP8
	PSSNR/L4040S2509	40	40	250	40	48	50	SN□□2509□□		PS25476			

P类夹紧方式(外圆) P Type External Turning Tool Holders





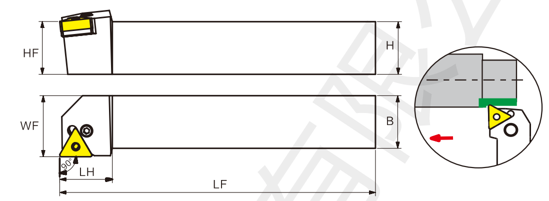
PRDCN	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
	PRDCN2020K12	20	20	125	20	10	25	RCMX1204□□	VHX0613	PR1204	S2.5	LCL12C	SP3
	PRDCN2525M12	25	25	150	25	12.5	25						
	PRDCN2525M16	25	25	150	25	10	35	RCMX1606□□	VHX0621	PR1604	S2.5	LCL16C	SP4
	PRDCN3232P16	32	32	170	32	16	32						
	PRDCN3232P20	32	32	170	32	16	40	RCMX2006□□	VHX0825	PR2004	S3	LCL20C	SP5
	PRDCN4040T20	40	40	300	40	20	45						
	PRDCN3232P25	32	32	170	32	16	45	RCMX2507□□	VHX1030	PR2506	S4	LCL25C	SP6
	PRDCN4040T25	40	40	300	40	20	50						

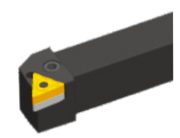


PRGCR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
	PRGCR/L2020K12	20	20	125	20	25	RCMX1204□□	VHX0613	PR1204	S2.5	LCL12C	SP3
	PRGCR/L2525M12	25	25	150	25	32						
	PRGCR/L2525M16	25	25	150	25	35	RCMX1606□□	VHX0621	PR1604	S2.5	LCL16C	SP4
	PRGCR/L3232P16	32	32	170	32	42						
	PRGCR/L3232P20	32	32	170	32	40	RCMX2006□□	VHX0825 VHX1030	PR2004 PR2506	S3 S4	LCL20C LCL25C	SP5 SP6
	PRGCR/L4040T20	40	40	300	40	50						
	PRGCR/L3232P25	32	32	170	32	45	RCMX2507□□					
	PRGCR/L4040T25	40	40	300	40	56						

A/b

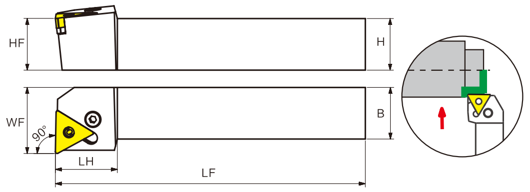
P类夹紧方式(外圆) P Type External Turning Tool Holders

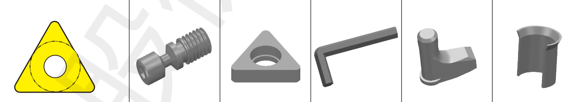
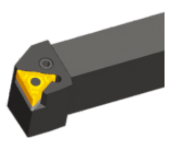


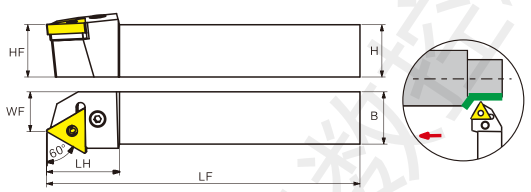


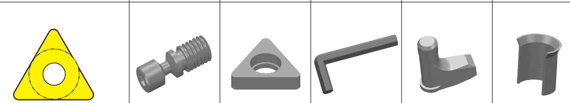
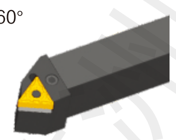
PTGNR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
90°	PTGNR/L1616H11	16	16	100	16	19	18	TN□□1103□□	VHX059B	—	S2	LV2	—
	PTGNR/L2020K11	20	20	125	20	24	20						
	PTGNR/L2525M11	25	25	150	25	29	20						
	PTGNR/L1616H16	16	16	100	16	19	22	TN□□1604□□	VHX0617	PT16	S2.5	LV3	SP3
	PTGNR/L2020K16	20	20	125	20	23	25						
	PTGNR/L2525M16	25	25	150	25	29	25						
	PTGNR/L3232P16	32	32	170	32	37	32						
	PTGNR/L2525M22	25	25	150	25	30	30	TN□□2204□□	VHX0821	PT22	S3	LV4	SP4
	PTGNR/L3232P22	32	32	170	32	37	32						
	PTGNR/L3232P27	32	32	170	32	37	38	TN□□2706□□	VHX0825	PT27	S3	LV5	SP5
	PTGNR/L4040S27	40	40	250	40	47	38						

P类夹紧方式(外圆) P Type External Turning Tool Holders

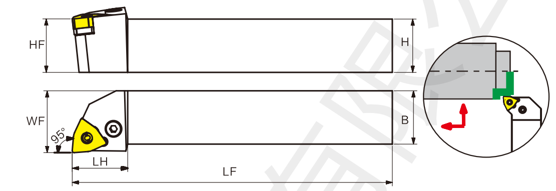


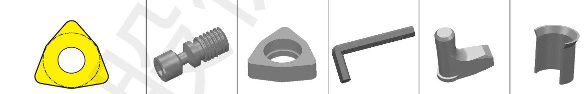
PTFNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
		H	B	LF	HF	WF	LH						
90° 	PTFNR/L1616H16	16	16	100	16	20	20	TN□□1604□□	VHX0617	PT16	S2.5	LV3	SP3
	PTFNR/L2020K16	20	20	125	20	25	20						
	PTFNR/L2525M16	25	25	150	25	30	25						
	PTFNR/L2525M22	25	25	150	25	32	30	TN□□2204□□	VHX0821	PT22	S3	LV4	SP4
	PTFNR/L3232P22	32	32	170	32	38	30						
	PTFNR/L3232P27	32	32	170	32	38	35	TN□□2706□□	VHX0825	PT27	S3	LV5	SP5
	PTFNR/L4040S27	40	40	250	40	50	34						



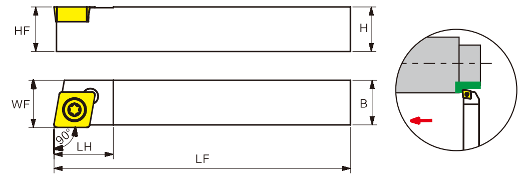
PTTNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
		H	B	LF	HF	WF	LH						
60° 	PTTNR/L1616H16	16	16	100	16	13	25	TN□□1604□□	VHX0617	PT16	S2.5	LV3	SP3
	PTTNR/L2020K16	20	20	125	20	17	25						
	PTTNR/L2525M25	25	25	150	25	22	32	TN□□2204□□	VHX0821	PT22	S3	LV4	SP4

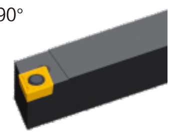
P类夹紧方式(外圆) P Type External Turning Tool Holders

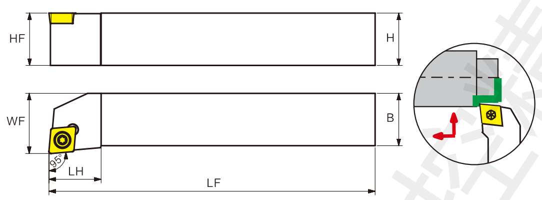


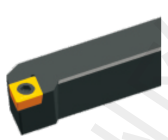
PWLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
		H	B	LF	HF	WF	LH						
95° 	PWLNR/L1616H06	16	16	100	16	19	22	WN□□0604□□	VHX0617	PW06270	S2.5	LV3	SP3
	PWLNR/L2020K06	20	20	125	20	23	25						
	PWLNR/L2525M06	25	25	150	25	28	25						
	PWLNR/L2020K08	20	20	125	20	25	26	WN□□0804□□	VHX0821	PW08318	S3	LV4	SP4
	PWLNR/L2525M08	25	25	150	25	29	26						
	PWLNR/L3232P08	32	32	170	32	37	26						

S类夹紧方式(外圆) S Type External Turning Tool Holders

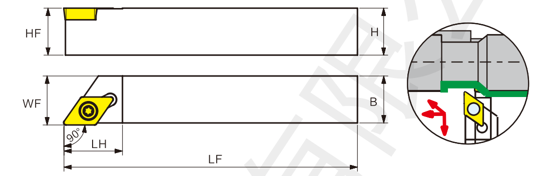


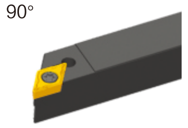
SCACR/L	型号 Type	H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
90° 	SCACR/L1010E06	10	10	70	10	10.5	10	CC□T0602□□	L60M2.5×5	T08
	SCACR/L1212F09	12	12	80	12	12.7	16	CC□T09T3□□	L60M4×8	T15

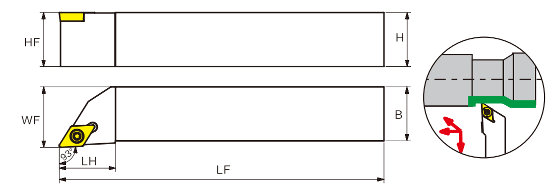


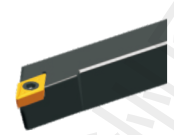
SCLCR/L	型号 Type	H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
95° 	SCLCR/L1212F09	12	12	80	12	15	16	CC□T09T3□□	L60M4×8	T15
	SCLCR/L1616H09	16	16	100	16	20	16			
	SCLCR/L2020K09	20	20	125	20	23	20			
	SCLCR/L2020K12	20	20	125	20	24	25	CC□T1204□□	L60M5*12	T20
	SCLCR/L2525M12	25	25	150	25	29	25			
	SCLCR/L3225P12	32	32	170	32	29	25			
	SCLCR/L3232P12	32	32	170	32	36	38			

S类夹紧方式(外圆) S Type External Turning Tool Holders

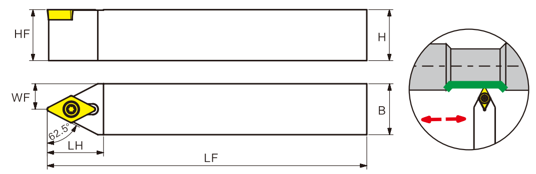


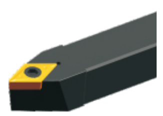
SDACR/L	型号 Type	H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
90° 	SDACR/L1010E07	10	10	70	10	10.5	15	DC□T0702□□	L60M2.5×5	T08
	SDACR/L1212F11	12	12	80	12	12.5	20	DC□T11T3□□	L60M4×8	T15
	SDACR/L1616H11	16	16	100	16	16.7	20			

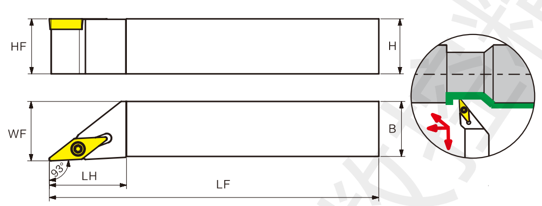


SDJCR/L	型号 Type	H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
93° 	SDJCR/L1010E07	10	10	70	10	12	15	DC□T0702□□	L60M2.5×5	T08
	SDJCR/L1212F07	12	12	80	12	14	15			
	SDJCR/L1616H07	16	16	100	16	18	18			
	SDJCR/L2020K07	20	20	125	20	22	18			
	SDJCR/L1616H11	16	16	100	16	19	20	DC□T11T3□□	L60M4×8	T15
	SDJCR/L2020K11	20	20	125	20	23	26			
	SDJCR/L2525M11	25	25	150	25	28	26			
	SDJCR/L3225P11	32	25	170	32	28	26			
	SDJCR/L3232P11	32	32	170	32	35	31			

S类夹紧方式(外圆) S Type External Turning Tool Holders

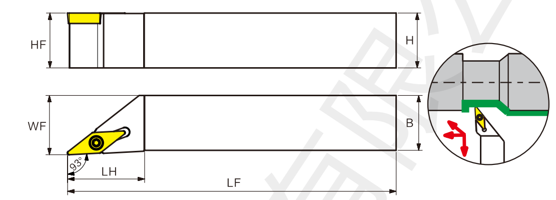


SDNCN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
62.5° 	SDNCN1010E07	10	10	70	10	5	16	DC□T0702□□	L60M2.5×5	T08
	SDNCN1212F07	12	12	80	12	6	20			
	SDNCN1212H11	12	12	100	12	6	22	DC□T11T3□□		
	SDNCN1616H11	16	16	100	16	8	22		L60M4×8	T15
	SDNCN2020K11	20	20	125	20	10	22			
	SDNCN2525M11	25	25	150	25	12.5	22			

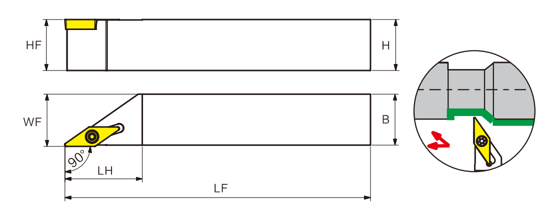


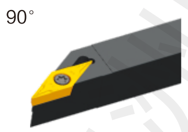
SVJCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
93° 	SVJCR/L1212F11	12	12	80	12	14	20	VC□T1103□□	L60M2.5×5	T08
	SVJCR/L1616H11	16	16	100	16	18	22			
	SVJCR/L2020K11	20	20	125	20	22	27			
	SVJCR/L2525M11	25	25	150	25	27	35			
	SVJCR/L1616H16	16	16	100	16	18	32	VC□T1604□□	L60M4×8	T15
	SVJCR/L2020K16	20	20	125	20	22	32			
	SVJCR/L2525M16	25	25	150	25	27	35			
	SVJCR/L3225P16	32	25	170	32	27	35			
	SVJCR/L3232P16	32	32	170	32	35	45			

S类夹紧方式(外圆) S Type External Turning Tool Holders

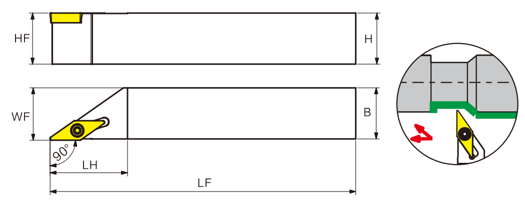


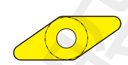
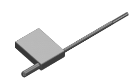
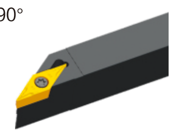
SVJBR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
93° 	SVJBR/L1212F11	12	12	80	12	14	27	VB□T1103□□	L60M2.5×5	T08
	SVJBR/L1616H11	16	16	100	16	18	27			
	SVJBR/L2020K11	20	20	125	20	22	27			
	SVJBR/L2525M11	25	25	150	25	27	27			
	SVJBR/L1616H16	16	16	100	16	18	36	VB□T1604□□	L60M4×8	T15
	SVJBR/L2020K16	20	20	125	20	22	41			
	SVJBR/L2525M16	25	25	150	25	27	41			
	SVJBR/L3225P16	32	25	170	32	27	41			
	SVJBR/L3232P16	32	32	170	32	35	41			

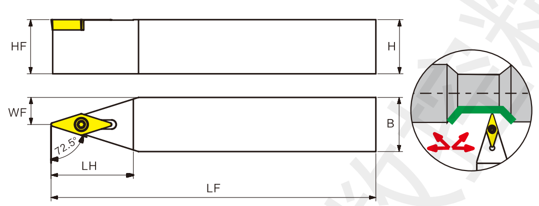


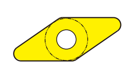
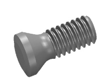
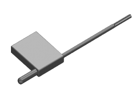
SVABR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
90° 	SVABR/L1616H16	16	16	100	16	16.5	32	VB□T1604□□	L60M4×8	T15
	SVABR/L2020K16	20	20	125	20	20.5	32			
	SVABR/L2525M16	25	25	150	25	25.5	38			

S类夹紧方式(外圆) S Type External Turning Tool Holders

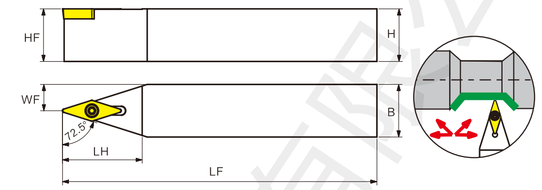


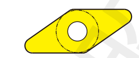
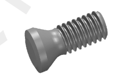
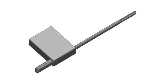
SVACR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
90° 	SVACR/L1616H16	16	16	100	16	16.5	32	VC□T1604□□	L60M4×8	T15
	SVACR/L2020K16	20	20	125	20	20.5	32			
	SVACR/L2525M16	25	25	150	25	25.5	38			

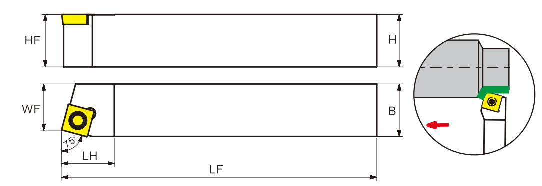


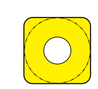
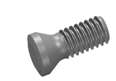
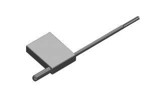
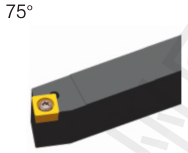
SVVBN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
72.5° 	SVVBN1212F11	12	12	80	12	6	22	VB□T1103□□	L60M2.5×5	T08
	SVVBN1616H11	16	16	100	16	8	27			
	SVVBN2020K11	20	20	125	20	10	30			
	SVVBN1616H16	16	16	100	16	8	33	VB□T1604□□	L60M4×8	T15
	SVVBN2020K16	20	20	125	20	10	33			
	SVVBN2525M16	25	25	150	25	12.5	38			
	SVVBN3225P16	32	25	170	32	12.5	38			
	SVVBN3232P16	32	32	170	32	16	38			

S类夹紧方式(外圆) S Type External Turning Tool Holders

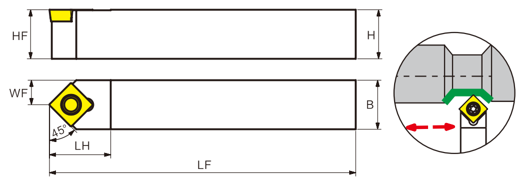


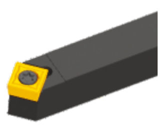
SVVCN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
72.5° 	SVVCN1212F11	12	12	80	12	6	22	VC□T1103□□	L60M2.5×5	T08
	SVVCN1616H11	16	16	100	16	8	27			
	SVVCN2020K11	20	20	125	20	10	30			
	SVVCN1616H16	16	16	100	16	8	33	VC□T1604□□	L60M4×8	T15
	SVVCN2020K16	20	20	125	20	10	33			
	SVVCN2525M16	25	25	150	25	12.5	38			
	SVVCN3225P16	32	25	170	32	12.5	38			
	SVVCN3232P16	32	32	170	32	16	38			



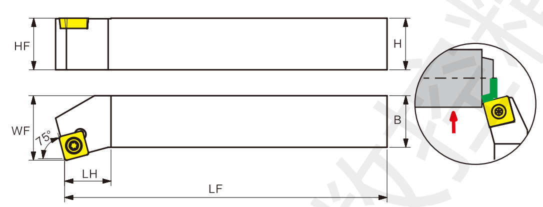
SSBCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
75° 	SSBCR/L1212F09	12	12	80	12	11	14	SC□T09T3□□	L60M4×8	T15
	SSBCR/L1616H09	16	16	100	16	13	16			
	SSBCR/L2020K12	20	20	125	20	17	25	SC□T1204□□	L60M5×12	T20
	SSBCR/L2525M12	25	25	150	25	22	25			
	SSBCR/L3232P12	32	32	170	32	27	28			

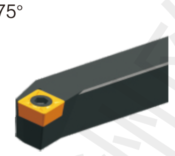
S类夹紧方式(外圆) S Type External Turning Tool Holders





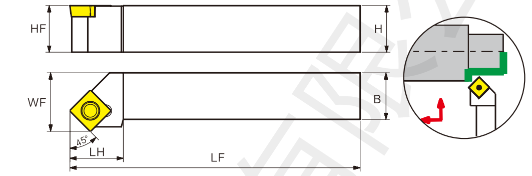
SSDCN	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
45°	SSDCN1212F09	12	12	80	12	6	16	SC□T09T3□□	L60M4×8	T15
	SSDCN1616H09	16	16	100	16	8	16			
	SSDCN2020K09	20	20	125	20	10	16			
	SSDCN2525M09	25	25	150	25	12.5	25			
	SSDCN2020K12	20	20	125	20	10	25	SC□T1204□□	L60M5×12	T20
	SSDCN2525M12	25	25	150	25	12.5	25			
	SSDCN3232P12	32	32	170	32	16	25			

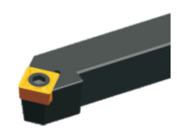




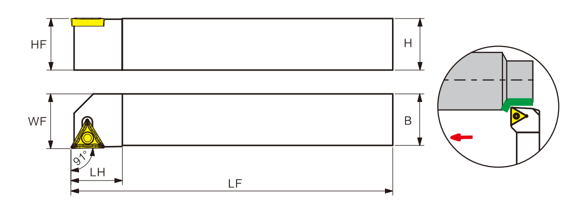
SSKCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
75°	SSKCR/L1616H09	16	16	100	16	20	13	SC□T09T3□□	L60M4×8	T15
	SSKCR/L2020K09	20	20	125	20	25	18			
	SSKCR/L2020K12	20	20	125	20	20	18	SC□T1204□□	L60M5×12	T20
	SSKCR/L2525M12	25	25	150	25	32	22			
	SSKCR/L3232P12	32	32	170	32	40	27			

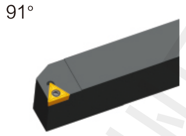
S类夹紧方式(外圆) S Type External Turning Tool Holders





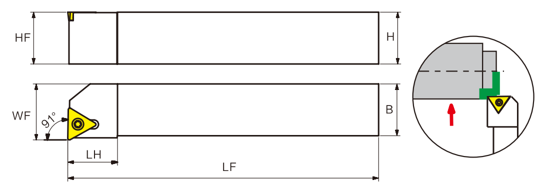
SSSCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
45°	SSSCR/L1616H09	16	16	100	16	20	16	SC□T09T3□□	L60M4×8	T15
	SSSCR/L2020K09	20	20	125	20	25	20			
	SSSCR/L2020K12	20	20	125	20	20	23	SC□T1204□□	L60M5×12	T20
	SSSCR/L2525M12	25	25	150	25	32	25			
	SSSCR/L3232P12	32	32	170	32	40	28			



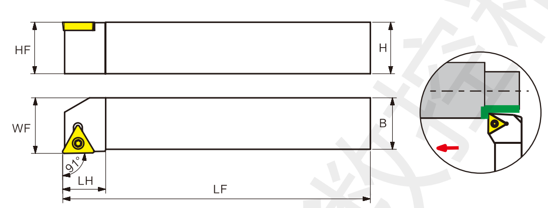


STACR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		H	B	LF	HF	WF	LH			
91°	STACR/L1212F11	12	12	80	12	12.5	14	TC□T1102□□	L60M2.5×5	T08

S类夹紧方式(外圆) S Type External Turning Tool Holders

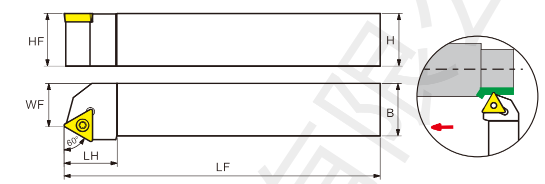


STFCR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
91°	STFCR/L1212F11	12	12	80	12	14	14	TC□T1102□□	L60M2.5×5	T08
	STFCR/L1616H11	16	16	100	16	18	16			
	STFCR/L2020K11	20	20	125	20	22	16			
	STFCR/L1616H16	16	16	100	16	18	19	TC□T16T3□□	L60M4×8	T15
	STFCR/L2020K16	20	20	125	20	22	19			
	STFCR/L2525M16	25	25	150	25	27	24			

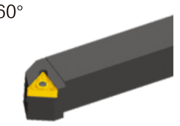


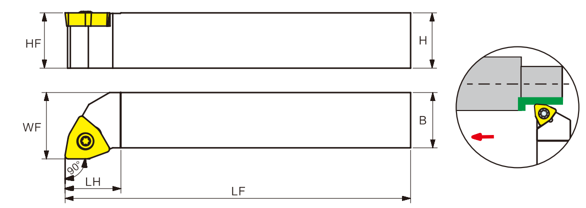
STGCR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
91°	STGCR/L0808D09	08	08	60	8	10	11	TC□T0902□□	L60M2.5×5	T06
	STGCR/L1010E09	10	10	70	10	11	11			
	STGCR/L1212F11	12	12	80	12	14	14	TC□T1102□□	L60M2.5×5	T08
	STGCR/L1616H11	16	16	100	16	17	16			
	STGCR/L2020K16	20	20	125	20	22	21	TC□T16T3□□	L60M4×8	T15
	STGCR/L2525M16	25	25	150	25	27	21			

S类夹紧方式(外圆) S Type External Turning Tool Holders

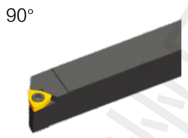


STTCR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
60°	STTCR/L1616H11	16	16	100	16	13	14	TC□T1102□□	L60M2.5×5	T08
	STTCR/L1616H16	16	16	100	16	13	19	TC□T16T3□□	L60M4×8	T15
	STTCR/L2020K16	20	20	125	20	17	19			

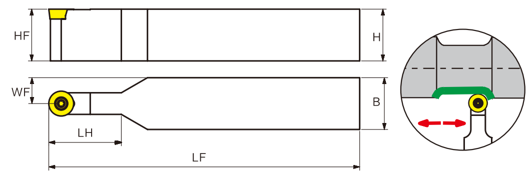


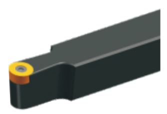


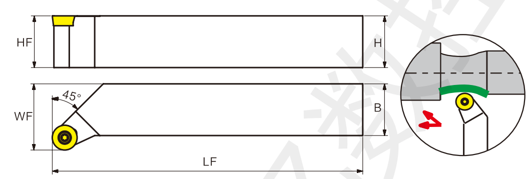
SWACR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
90°	SWACR/L1010E04	10	10	70	10	10.5	10	WC□X0402□□	L60M2.5×5	T08
	SWACR/L1212F04	12	12	80	12	12.5	14			
	SWACR/L1616H06	16	16	100	16	16.5	20	WC□X06T3□□	L60M3×7	T09
	SWACR/L2020K08	20	20	125	20	20.5	24	WC□X0804□□	L60M4×8	T15

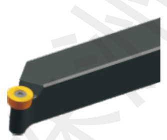


S类夹紧方式(外圆) S Type External Turning Tool Holders

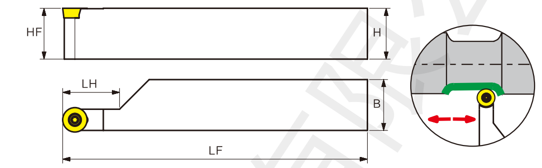


SRDCN	型号 Type	尺寸 Dimension H	B	LF	HF	WF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	刀垫 Shim	刀垫螺钉 Shim Screw	刀垫扳手 Shim Wrench
	SRDCN2020K06	20	20	125	20	10	11	RC□T0602□□	L60M2.5×5	T08	—	—	—
	SRDCN2525M06	25	25	150	25	12.5	11						
	SRDCN2020K08	20	20	125	20	10	16	RC□T0803□□	L60M3×7	T09	—	—	—
	SRDCN2525M08	25	25	150	25	12.5	16						
	SRDCN2020K10	20	20	125	20	10	25	RC□T10T3□□	L60M3.5×10	T15	—	—	—
	SRDCN2525M10	25	25	150	25	12.5	25						
	SRDCN2020K12	20	20	125	20	10	35	RC□T1204□□	L60M3.5×12	T15	—	—	—
	SRDCN2525M12	25	25	150	25	12.5	35						
	SRDCN3225P12	32	25	170	32	16	35						
	SRDCN2525M16	25	25	150	25	12.5	35	RC□T1606□□	L60M4×16	T20	R16BS	SM0614	S4
	SRDCN3232P16	32	32	170	32	16	40						
	SRDCN3232P20	32	32	170	32	16	40	RCMX2006	L60M5×16-8.1	T20	R20BS	SM0814	S5
	SRDCN4040S20	40	40	250	40	20	40						



SRGCR/L	型号 Type	尺寸 Dimension H	B	LF	HF	WF	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	刀垫 Shim	刀垫螺钉 Shim Screw	刀垫扳手 Shim Wrench
	SRGCR/L2020K10	20	20	125	20	25	RC□T 10T3□□	L60M3.5×10	T15	—	—	—
	SRGCR/L2525M10	25	25	150	25	32						
	SRGCR/L2020K12	20	20	125	20	27	RC□T 1204□□	L60M3.5×12	T15	—	—	—
	SRGCR/L2525M12	25	25	150	25	32						
	SRGCR/L3225P12	32	25	170	32	32						
	SRGCR/L2525M16	25	25	150	25	32	RC□T 1606□□	L60M4×6	T20	R16BS	Sm0614	S4
	SRGCR/L3232P16	32	32	170	32	40						
	SRGCR/L3232P20	32	32	170	32	40	RCMX2006	L60M5×16-8.1	T20	R20BS	SM0814	S5
	SRGCR/L4040S20	40	40	250	40	48						

S类夹紧方式(外圆) S Type External Turning Tool Holders



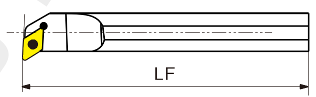
SRACR/L	型号 Type	尺寸 Dimension H	B	LF	HF	LH	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench	刀垫 Shim	刀垫螺钉 Shim Screw	刀垫扳手 Shim Wrench
	SRACR/L2020K06	20	20	125	20	15	RC□T 0602□□	L60M2.5×5	T08	—	—	—
	SRACR/L2525M06	25	25	150	25	23						
	SRACR/L2020K08	20	20	125	20	18	RC□T 0803□□	L60M3×7	T09	—	—	—
	SRACR/L2525M08	25	25	150	25	23						
	SRACR/L2020K10	20	20	125	20	20	RC□T 10T3□□	L60M3.5×10	T15	—	—	—
	SRACR/L2525M10	25	25	150	25	25						
	SRACR/L2020K12	20	20	125	20	28	RC□T 1204□□	L60M3.5×12	T15	—	—	—
	SRACR/L2525M12	25	25	150	25	28						
	SRACR/L3225P12	32	25	170	32	28						
	SRACR/L2525M16	25	25	150	25	35	RC□T 1606□□	L60M4×16	T15	R16BS	SM0614	S4
	SRACR/L3232P16	32	32	170	32	40						
	SRACR/L3232P20	32	32	170	32	40	RCMX2006	L60M5×16-8.1	T20	R20BS	SM0814	S5
	SRACR/L4040S20	40	40	250	40	55						

内孔车刀命名规则 Internal Turning Tool Holder Naming Rule

刀杆形式 Tool Holder Type

S 25 R – P C L N R 09

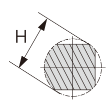
代号 Symbol	A	E	C	S	X
刀杆类型 Type of shank	钢杆+油冷却孔 Steel Shank+oil Cooling Hole	硬质合金杆+油冷却孔 Carbide Shank+oil Cooling Hole	硬质合金杆 Carbide Shank	钢杆 Steel Shank	使用特殊刀片 Special Insert Application



刀杆直径 Tool Holder Diameter

S 25 R – P C L N R 09

刀杆直径 Tool holder diameter



刀杆长度 Tool Length

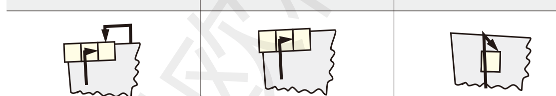
S 25 R – P C L N R 09

H	K	M	N	Q	R	S	T	U	V
100	125	150	160	180	200	250	300	350	400

压紧方式 Clamping System

S 25 R – P C L N R 09

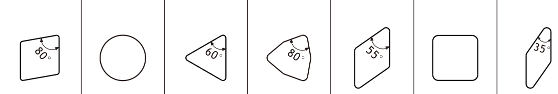
M	P	S
复合压紧式 Top and hole clamping	杠杆压紧式 hole clamping	螺钉压紧式 Screw on



刀片形状 Insert Shape

S 25 R – P C L N R 09

C	R	T	W	D	S	V

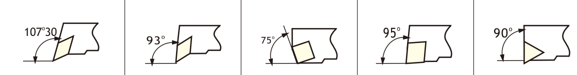


内孔车刀命名规则 Internal Turning Tool Holder Naming Rule

刀头形状 Tool holder Style

S 25 R – P C L N R 09

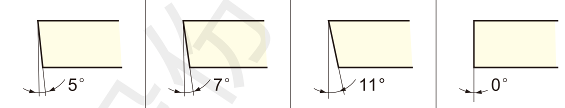
P	U	K	L	F



刀片后角 Clearance Angle

S 25 R – P C L N R 09

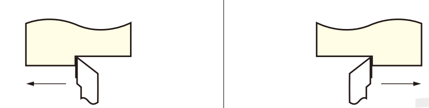
B	C	P	N



切削方向 Cutting Direction

S 25 R – P C L N R 09

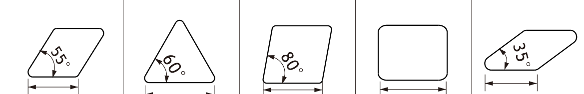
R	L



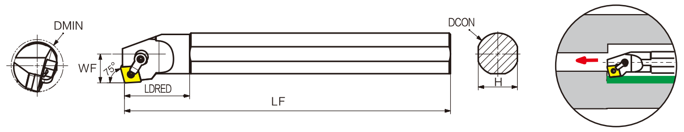
切削刃长 Cutting Edge Length

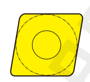
S 25 R – P C L N R 09

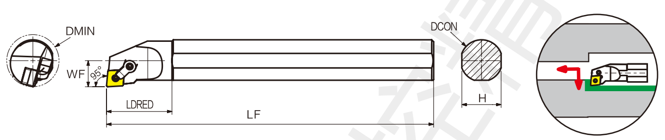
D	T	C	S	V

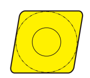


M类夹紧方式(内孔) M Type Internal Turning Tool Holders

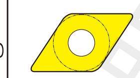
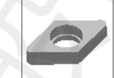
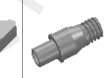
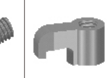
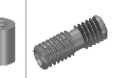
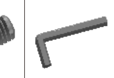


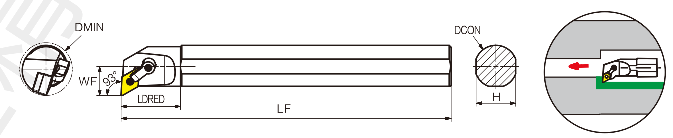
MCKNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED						
75° 	S20Q-MCKNR/L12	26	20	18	180	14	35	CN□□1204□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MCKNR/L12	32	25	23	200	16.5	35						
	S32S-MCKNR/L12	40	32	30	250	22	50		MC1204	MSP617	MCL1814	WS061025	S3
	S40T-MCKNR/L12	50	40	38	300	26	55						
	S50U-MCKNR/L12	60	50	48	350	30	60						

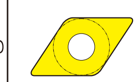
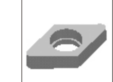
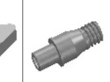
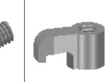
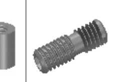
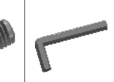


MCLNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		Dmin	DCON	H	LF	WF	LDRED						
95° 	S20Q-MCLNR/L12	26	20	18	180	13	40	CN□□1204□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MCLNR/L12	32	25	23	200	16	40				MCL1814	WS061025	
	S32S-MCLNR/L12	40	32	30	250	20	50		MC1204	MSP617			S3
	S40T-MCLNR/L12	50	40	37	300	26	55						
	S50U-MCLNR/L12	60	50	46	350	31	70						

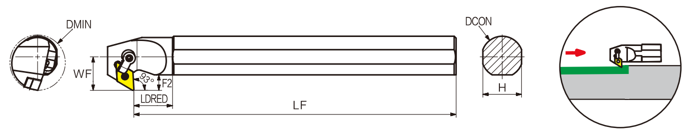
M类夹紧方式(内孔) M Type Internal Turning Tool Holders

MDQNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED						
107.5° 	S20Q-MDQNR/L1504	26	20	18	180	13	40	DN□□1504□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MDQNR/L1504	32	25	23	200	17	45				MCL2114	WS061025	
	S32S-MDQNR/L1504	40	32	30	250	20	55		MD1504	MSP617			S3
	S40T-MDQNR/L1504	50	40	38	300	24	55						
	S32S-MDQNR/L1506	40	32	30	250	20	55	DN□□1506□□		MSP619			
	S40T-MDQNR/L1506	50	40	38	300	24	55						

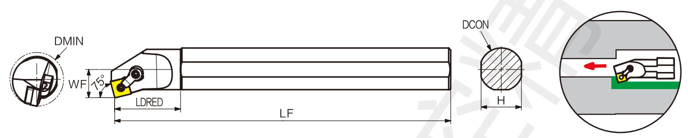


MDUNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED						
93° 	S20Q-MDUNR/L1504	28	20	18	180	17	40	DN□□1504□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MDUNR/L1504	32	25	24	200	19	40				MCL1814	WS061025	
	S32S-MDUNR/L1504	40	32	30	250	22	45		MD1504	MSP617	MCL2114		S3
	S40T-MDUNR/L1504	50	40	37	300	26	55						
	S32S-MDUNR/L1506	40	32	30	250	22	45	DN□□1506□□		MSP619			
	S40T-MDUNR/L1506	50	40	37	300	26	55						

M类夹紧方式(内孔) M Type Internal Turning Tool Holders

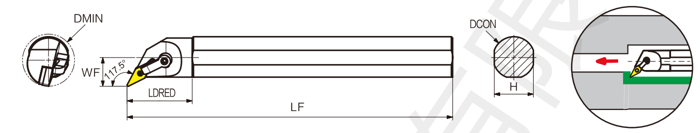


MDZNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2						
93° 	S25R-MDZNR/L1504	36	25	23	200	22	35	11	DN□□1504□□	X	MSP613	MCL1814	WS061025	S2.5 S3
	S32S-MDZNR/L1504	43	32	30	250	26	40	12		MD1504	MSP617			S3
	S40T-MDZNR/L1504	50	40	37	300	29	50	11.5						
	S32S-MDZNR/L1506	43	32	30	250	26	40	12	DN□□1506□□		MSP619			
	S40T-MDZNR/L1506	50	40	37	300	29	50	11.5						

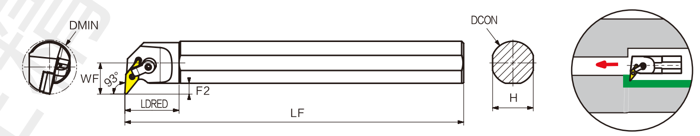


MSKNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED						
75° 	S20Q-MSKNR/L12	26	20	18	180	13	15°	31	SN□□1204□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MSKNR/L12	32	25	23	200	17	12°	35				MCL1814	WS061025	
	S32S-MSKNR/L12	40	32	30	250	22	17°	40		MS1204	MSP617			
	S40T-MSKNR/L12	50	40	37	300	27	15°	50						

M类夹紧方式(内孔) M Type Internal Turning Tool Holders



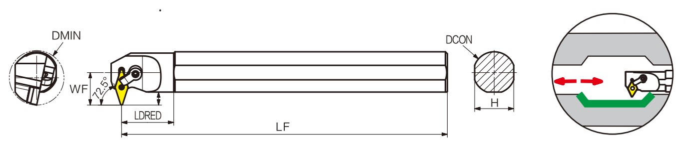
MVQNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED						
117.5° 	S25R-MVQNR/L16	32	25	23	200	17	12°	40	VN□□1604□□	X	MSP510	MCL1814	WS061025	S2 S3
	S32S-MVQNR/L16	42	32	30	250	22	17°	40		MV1603	MSP513	MCL2414		
	S40T-MVQNR/L16	50	40	37	300	27	15°	50						



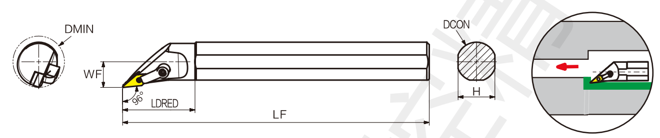
MVUNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2						
93°	S25R-MVUNR/L16	36	25	23	200	20	40	8	VN□□1604□□	X	MSP510	MCL1814	WS061025	S2 S3
	S32S-MVUNR/L16	42	32	30	250	23	40	8		MV1603	MSP513			
	S40T-MVUNR/L16	50	40	37	300	27	55	10						

B
C
D

M类夹紧方式(内孔) M Type Internal Turning Tool Holders



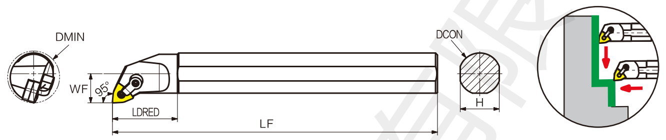
MVWNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	F2	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
72.5° 	S25R-MVWNR/L16	36	25	23	200	22	35	10	VN□□1604□□	X	MSP510	MCL1814	WS061025	S2 S3
	S32S-MVWNR/L16	48	32	30	250	25	40	10		MV1603	MSP513			
	S40T-MVWNR/L16	56	40	37	300	29	45	11						



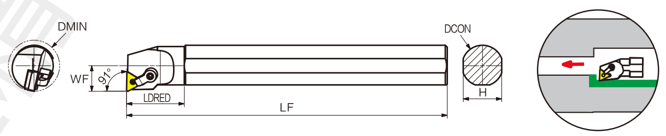
MVXNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
96° 	S25R-MVXNR/L16	32	25	23	200	17	55	VN□□1604□□	X	MSP510	MCL2414	WS061025	S2 S3
	S32S-MVXNR/L16	42	32	30	250	21	60		MV1603	MSP513			
	S40T-MVXNR/L16	50	40	38	300	25	68						

A/b

M类夹紧方式(内孔) M Type Internal Turning Tool Holders

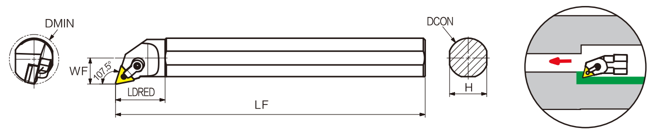


MWLNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
95° 	S20Q-MWLNR/L08	25	20	18	180	14.5	36	WN□□0804□□	X	MSP613	MCL1810	WS061020	S2.5 S3
	S25R-MWLNR/L08	32	25	23	200	17	40						
	S32S-MWLNR/L08	41	32	30	250	22	50		MW0804	MSP617	MCL1814	WS061025	S3
	S40T-MWLNR/L08	50	40	37	300	27	55						

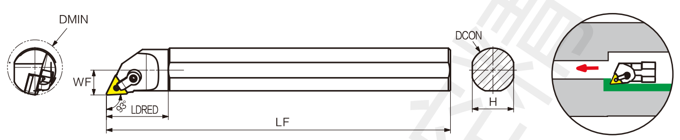


MTFNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
91° 	S20Q-MTFNR/L16	25	20	18	180	13	35	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
	S25R-MTFNR/L16	32	25	23	200	16	40				MCL1814	WS061025	
	S32S-MTFNR/L16	40	32	30	250	20	45		MT1603	MSP513			
	S40T-MTFNR/L16	50	40	37	300	25	50						

M类夹紧方式(内孔) M Type Internal Turning Tool Holders



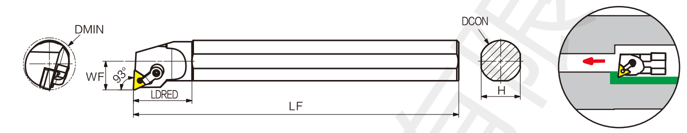
MTQNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
107.5°	S20Q-MTQNR/L16	25	20	18	180	14	35	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
	S25R-MTQNR/L16	32	25	23	200	18	35				MCL1814	WS061025	
	S32S-MTQNR/L16	40	32	30	250	21	40		MT1603	MSP513			
	S40T-MTQNR/L16	50	40	37	300	25	50						



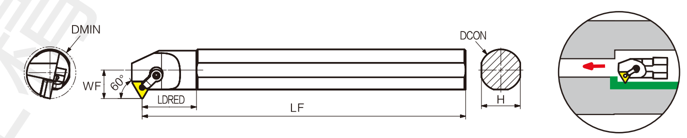
MTJNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
93°	S25R-MTJNR/L16	32	25	23	200	15	40	TN□□1604□□	X	MSP510	MCL1814	WS061025	S2 S3
	S32S-MTJNR/L16	40	32	30	250	18	45		MT1603	MSP513			
	S40T-MTJNR/L16	50	40	37	300	24	55						

A/b

M类夹紧方式(内孔) M Type Internal Turning Tool Holders

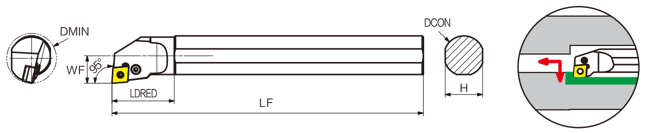


MTUNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
93°	S20Q-MTUNR/L16	25	20	18	180	13	31	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
	S25R-MTUNR/L16	32	25	23	200	17	35				MCL1814	WS061025	
	S32S-MTUNR/L16	40	32	30	250	22	40		MT1603	MSP513			
	S40T-MTUNR/L16	50	40	37	300	23	50						



MTWNR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	刀垫 Shim	销钉 Clamping Stud	压板 Clamp	双头螺钉 Clamping Screw	扳手 Wrench
60°	S20Q-MTWNR/L16	27	20	18	180	15	31	TN□□1604□□	X	MSP510	MCL1810	WS061020	S2 S3
	S25R-MTWNR/L16	32	25	23	200	17	35				MCL1814	WS061025	
	S32S-MTWNR/L16	40	32	30	250	22	42		MT1603	MSP513			
	S40T-MTWNR/L16	50	40	38	300	27	50						

P类夹紧方式(内孔) P Type Internal Turning Tool Holders

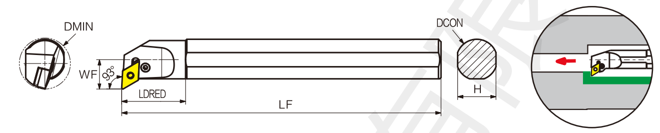


PCLNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
		DMIN	DCON	H	LF	WF	Θ°	LDRED						
95° 	S16Q-PCLNR/L09	20	16	15	180	10	-12°	30	CN□□0903□□	VHX0509	—	S2	LV3C	—
	S20Q-PCLNR/L09	25	20	18	180	12	-11°	30						
	S25R-PCLNR/L09	32	25	23	200	15	-10°	35						
	S20Q-PCLNR/L12	25	20	18	180	13	-11°	35	CN□□1204□□	VHX0613	—	S2.5	LV4A	—
	S25R-PCLNR/L12	32	25	23	200	15	12°	40						
	S32S-PCLNR/L12	44	32	30	250	22	-10°	50		VHX0821	PC12318	S3	LV4	SP4
	S40T-PCLNR/L12	54	40	37	300	24	-10°	55						
	S50U-PCLNR/L12	63	50	47	350	27	-10°	58						
	S50U-PCLNR/L19	63	50	47	350	32	-10°	70	CN□□1906□□	VHX1027	PC19476	S4	LV6	SP6

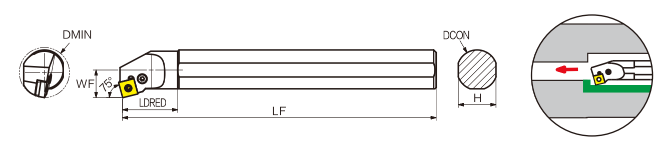
PDSNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
		DMIN	DCON	H	LF	WF	LDRED	F2						
62.5° 	S32S-PDSNR/L15	40	32	30	250	23.5	45	9	DN□□1506□□	VHX0821	PD15318	S3	LV4B	SP4
	S40T-PDSNR/L15	50	40	37	300	28.5	43	11						
	S32S-PDSNR/L15-3	40	32	30	250	23.5	45	9	DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4
	S40T-PDSNR/L15-3	50	40	37	300	28.5	43	11						

A/b

P类夹紧方式(内孔) P Type Internal Turning Tool Holders

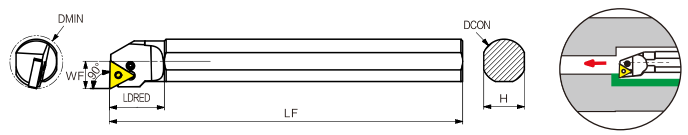


PDUNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
		DMIN	DCON	H	LF	WF	Θ°	LDRED						
93° 	S20Q-PDUNR/L11	25	20	18	180	13	-16°	30	DN□□1104□□	VHX0512	—	S2	LV3D	—
	S25R-PDUNR/L11	32	25	23	200	17	-13°	35						
	S32S-PDUNR/L11	40	32	30	250	22	-16°	40		VHX0617	PD11270	S2.5	LV3	SP3
	S32S-PDUNR/L15	40	32	30	250	22	-16°	50	DN□□1506□□	VHX0821	PD15318	S3	LV4B	SP4
	S40T-PDUNR/L15	50	40	37	300	27	-11°	50						
	S32S-PDUNR/L15-3	40	32	30	250	22	-16°	50	DN□□1504□□	VHX0821	PD15318	S3	LV4	SP4
	S40T-PDUNR/L15-3	50	40	37	300	27	-11°	50						

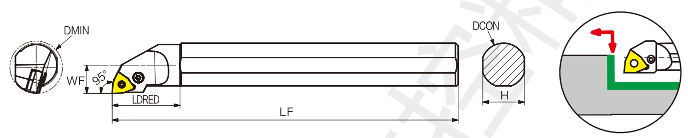


PSKNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Shim pin
		DMIN	DCON	H	LF	WF	Θ°	LDRED						
75° 	S25R-PSKNR/L12	32	25	23	200	17	-12°	42	SN□□1204□□	VHX0613	—	S2.5	LV4A	—
	S32S-PSKNR/L12	44	32	30	250	22	-10°	45		VHX0821	PS12318	S3	LV4	SP4
	S40T-PSKNR/L12	54	40	37	300	27	-10°	50						

P类夹紧方式(内孔) P Type Internal Turning Tool Holders

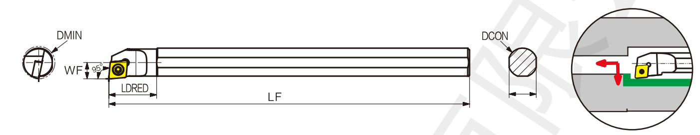


PTFNR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Cushion Block
		DMIN	DCON	H	LF	WF	LDRED						
90° 	S16Q-PTFNR/L11	20	16	15	180	11	28	TN□□1103□□	VHX0509	—	S2	LV2	—
	S20Q-PTFNR/L11	25	20	18	180	13	31						
	S25R-PTFNR/L11	32	25	23	200	17	35						
	S25R-PTFNR/L16	32	25	23	200	17	42	TN□□1604□□	VHX0512	—	S2	LV3B	—
	S32S-PTFNR/L16	44	32	30	250	22	50		VHX0613	PT16476	S2.5	LV3	SP3
	S40T-PTFNR/L16	54	40	37	300	27	55						

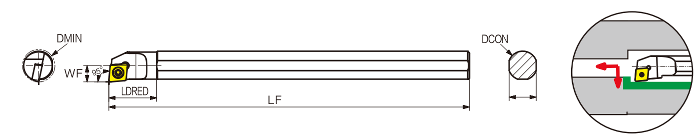


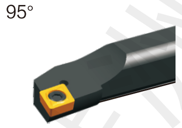
PWLNR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	扳手 Wrench	杠杆 Lever	挡垫 Cushion Block
		DMIN	DCON	H	LF	WF	θ°	LDRED						
95° 	S16Q-PWLNR/L06	20	16	15	180	11	-13°	25	WN□□0604□□	VHX0512	—	S2	LV3B	—
	S20Q-PWLNR/L06	25	20	18	180	13	-13°	32						
	S25R-PWLNR/L06	32	25	23	200	17	-13°	35						
	S20Q-PWLNR/L08	25	20	18	180	13	-13°	32	WN□□0804□□	VHX0613	—	S2.5	LV4A	—
	S25R-PWLNR/L08	32	25	23	200	17	-13°	45						
	S32S-PWLNR/L08	40	32	30	250	22	-13°	50		VHX0821	PW08318	S3	LV4A	SP4
	S40T-PWLNR/L08	50	40	42	300	30	-13°	55						

S类夹紧方式(内孔) S Type Internal Turning Tool Holders

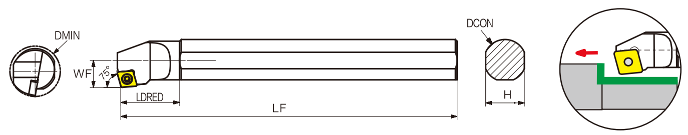


SCLCR/L	型号 Type	尺寸 Dimension						适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED			
95° 	S07K-SCLCR/L06	9	7	6	125	4.6	15	CC□T0602□□	L60M2.5×5	T08
	S08K-SCLCR/L06	10	8	7	125	4.5	14			
	S10K-SCLCR/L06	12	10	9	125	6	17			
	S12M-SCLCR/L06	16	12	11	150	7	17			
	S12M-SCLCR/L09	16	12	11	150	8	25	CC□T09T3□□	L60M4×8	T15
	S16Q-SCLCR/L09	20	16	15	180	9	27			
	S20Q-SCLCR/L09	25	20	18	180	11	28			
	S25R-SCLCR/L09	32	25	23	200	14	35			
	S25R-SCLCR/L12	32	25	23	250	17	34	CC□T1204□□	L60M5×12	T20
	S32S-SCLCR/L12	36	32	30	250	18	45			
	S40T-SCLCR/L12	50	40	37	300	27	60			

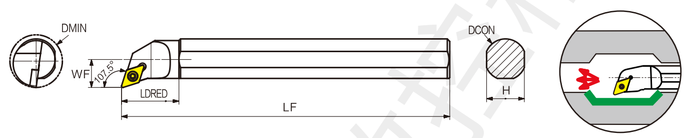


SCLCR/L-H	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	θ°	LDRED			
95° 	S08K-SCLCR/L06H09	9	8	7	125	4.3	-15°	15	CC□T0602□□	L60M2.5×5	T08
	S10K-SCLCR/L06H09	11	10	9	125	5.5	-15°	16			
	S12M-SCLCR/L06H09	13	12	11	150	6.5	-10°	17			
	S16Q-SCLCR/L09H09	17	16	15	180	8.5	-12°	27	CC□T09T3□□	L60M4×8	T15

S类夹紧方式(内孔) S Type Internal Turning Tool Holders

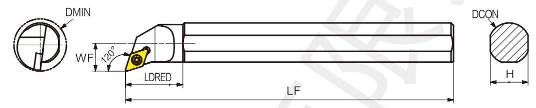


SCKCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED			
75° 	S08K-SCKCR/L06	10	8	7.5	125	5.5	13°	15	CC□T0602□□	L60M2.5×5	T08
	S10K-SCKCR/L06	13	10	9	125	7	12°	15			
	S12M-SCKCR/L06	16	12	11	150	8	10°	20			
	S12M-SCKCR/L09	16	12	11	150	8	12°	20	CC□T09T3□□	L60M4×8	T15
	S16Q-SCKCR/L09	20	16	15	160	10	10°	25			
	S20Q-SCKCR/L09	24	20	19	180	13	8°	30			
	S25R-SCKCR/L09	31	26	24	200	16	8°	35			

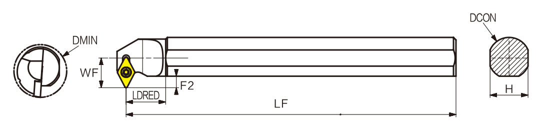


SDQCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED			
107.5° 	S08K-SDQCR/L07	10	8	7	125	6	-8°		DC□T0702□□	L60M2.5×5	T08
	S10K-SDQCR/L07	13	10	9	150	7	-8°	20			
	S12M-SDQCR/L07	16	12	11	150	9	-8°	22			
	S16Q-SDQCR/L07	20	16	15	180	11	-6°	27			
	S20Q-SDQCR/L11	25	20	18	180	13	-6°	35	DC□T11T3□□	L60M4×8	T15
	S25R-SDQCR/L11	32	26	23	200	17	-6°	38			

S类夹紧方式(内孔) S Type Internal Turning Tool Holders

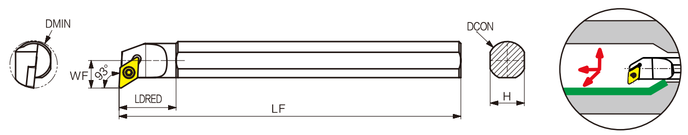


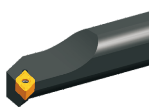
SDXCR	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED			
120° 	S10K-SDXCR/07	13	10	9	125	7	-8°	18	DC□T0702□□	L60M2.5×5	T08
	S12M-SDXCR/07	16	12	11	150	8	-8°	20			
	S16Q-SDXCR/07	20	16	15	180	10	-6°	25			
	S20Q-SDXCR/11	25	20	18	180	13	-6°	33	DC□T11T3□□	L60M4×8	T15
	S25R-SDXCR/11	32	25	23	200	16	-6°	32			

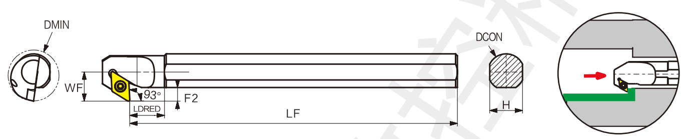


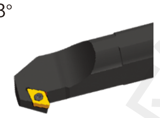
SDWCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED	F2			
62.5° 	S12M-SDWCR/L07	19	12	11	125	11	-8°	15	5.5	DC□T0702□□	L60M2.5×5	T08
	S16Q-SDWCR/L07	23	16	15	180	12.5	-8°	15	5			
	S20Q-SDWCR/L07	27	20	19	180	14.5	-8°	22	5.5			
	S20Q-SDWCR/L11	27	20	19	180	14.5	-6°	25	6	DC□T11T3□□	L60M4×8	T15
	S25R-SDWCR/L11	32	25	24	200	18	-6°	25	7			
	S32S-SDWCR/L11	40	32	30	250	21.5	-6°	40	6.5			

S类夹紧方式(内孔) S Type Internal Turning Tool Holders

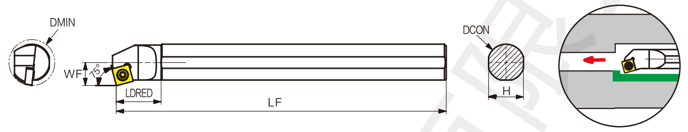


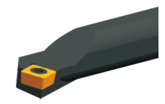
SDUCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED	F2			
93° 	S08K-SDUCR/L07	13	8	7.5	125	8	−8°		4	DC□T 0702□□	L60M2.5×5	T08
	S10K-SDUCR/L07	13	10	9	125	7.7	−8°		3			
	S12M-SDUCR/L07	16	12	11	150	8.5	−8°	22	3			
	S16Q-SDUCR/L07	20	16	15	180	11	−6°	27	3.5	DC□T 11T3□□	L60M4×8	T15
	S20Q-SDUCR/L11	25	20	18	180	14.5	−6°	30	5.5			
	S25R-SDUCR/L11	32	25	23	200	18.5	−6°	35	7			

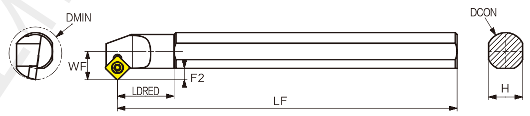


SDZCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED	F2			
93° 	S20Q-SDZCR/L11	27	20	18	180	15	−6°	20	7.5	DC□T 11T3□□	L60M4×8	T15
	S25R-SDZCR/L11	33	25	23	200	17	−6°	30	7.5			
	S32S-SDZCR/L11	40	32	30	250	22	−6°	35	8.4			
	S40T-SDZCR/L11	50	40	37	300	27	−4°	50	9.4			

S类夹紧方式(内孔) S Type Internal Turning Tool Holders

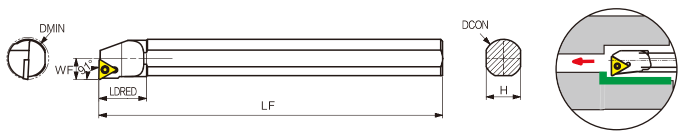


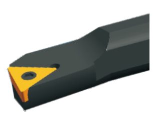
SSKCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED			
75° 	S12M-SSKCR/L09	16	12	11	150	9	−10°	25	SC□T 09T3□□	L60M4×8	T15
	S16Q-SSKCR/L09	20	16	15	180	11	−11°	30			
	S20Q-SSKCR/L09	25	20	18	180	13	−6°	35			
	S25R-SSKCR/L09	32	25	23	200	17	−8°	40			
	S25R-SSKCR/L12	32	25	23	200	17	−8°	40	SC□T 1204□□	L60M5×12	T20
	S32S-SSKCR/L12	40	32	30	250	22	−10°	45			



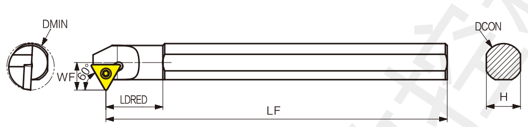
SSSCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED	F2			
	S12M-SSSCR/L09	17	12	11	150	10	−10°	15	4.5	SC□T 09T3□□	L60M4×8	T15
	S16Q-SSSCR/L09	22	16	15	180	13	−11°	25	5.5			
	S20Q-SSSCR/L09	25	20	18	180	15	−6°	30	6			
	S25R-SSSCR/L09	32	25	23	200	17	−8°	35	5.5			
	S25R-SSSCR/L12	32	25	23	200	17	−8°	35	5.5	SC□T 1204□□	L60M5×12	T20
	S32S-SSSCR/L12	40	32	30	250	22	−10°	40	7			

S类夹紧方式(内孔) S Type Internal Turning Tool Holders



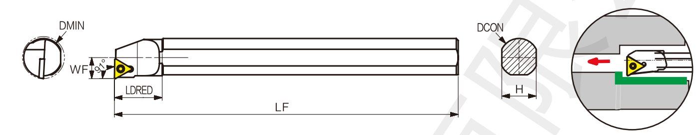


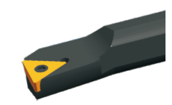
STFCR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
	S08K-STFCR/L09	10	8	7	125	5.5	8	TC□T0902□□	L60M2.5×5	T08
	S10K-STFCR/L09	12	10	9	125	6.8	10			
	S12M-STFCR/L09	16	12	11	150	8	10			
	S12M-STFCR/L11	14	12	11	150	6.5	25	TC□T1102□□	L60M2.5×5	T08
	S16Q-STFCR/L11	18	16	15	180	9	25			
	S20Q-STFCR/L11	25	20	18	180	11	25			
	S25R-STFCR/L16	32	25	23	200	17	40	TC□T16T3□□	L60M4×8	T15
	S32S-STFCR/L16	36	32	30	250	18	50			
	S40T-STFCR/L16	50	40	37	300	25	60			



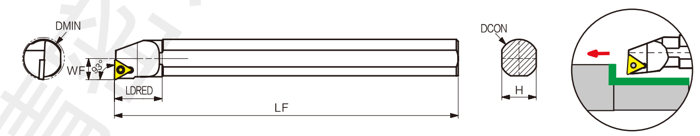
STWCR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	Θ°	LDRED	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
60°	S10K-STWCR/L11	14	10	9	125	8	-10°	14	TC□T1102□□	L60M2.5×5	T08
	S12M-STWCR/L11	16	12	11	150	9	-13°	25			
	S16Q-STWCR/L11	20	16	15	180	11	-10°	30			
	S20Q-STWCR/L11	25	20	19	180	13	-6°	30			
	S25R-STWCR/L11	32	25	24	200	17	-6°	35			
	S20Q-STWCR/L16	25	20	19	180	14.5	-3°	36	TC□T16T3□□	L60M4×8	T15
	S25R-STWCR/L16	32	25	24	200	17	-6°	49			
	S32S-STWCR/L16	39	32	30	250	22	-10°	50			
	S40T-STWCR/L16	50	40	38	300	25	-8°	50			

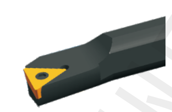
S类夹紧方式(内孔) S Type Internal Turning Tool Holders





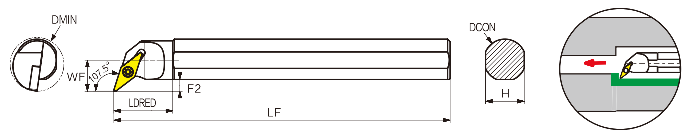
STFPR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	Θ°	LDRED	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
91°	S08K-STFPR/L09	10	08	7	125	5	-10°	14	TP□T0902□□	L60M2.5×5	T08
	S10K-STFPR/L11H11	11	10	9	125	5.5	-13°		TP□T1103□□		
	S12M-STFPR/L11H13	13	12	11	150	6.8	-10°				
	S16Q-STFPR/L11H17	17	16	15	180	8.8	-6°				

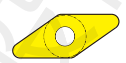
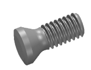
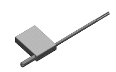
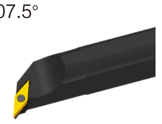


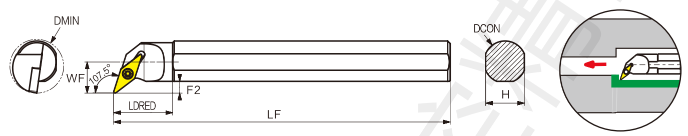


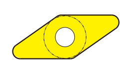
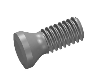
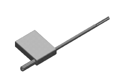
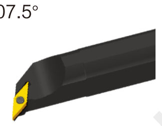
STUCR/L	型号 Type	尺寸 Dimension DMIN	DCON	H	LF	WF	Θ°	LDRED	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
93°	S08K-STUCR/L09	11	08	7	125	5.5	-15°		TC□T0902□□	L60M2.2×6	T06
	S08K-STUCR/L09-A16	11	16	15	125	5.5	-15°	24			
	S10K-STUCR/L09	13	10	9	125	6	-13°	10			
	S10K-STUCR/L09-A16	13	16	15	125	7	-13°	30			
	S10K-STUCR/L11	13	10	9	125	7	-12°	10	TC□T1102□□	L60M2.5×5	T08
	S10K-STUCR/L11-A16	16	16	15	125	7	-12°	30			
	S12M--STUCR/L11	16	12	11	150	7	-10°	25			
	S12M-STUCR/L11-A16	16	16	15	150	7	-10°	30			
	S16Q-STUCR/L11	20	16	15	160	9	-8°	25			
	S20Q-STUCR/L11	25	20	19	180	11	-6°	25			
	S25R-STUCR/L11	31	25	24	200	15	-4°	34			
	S20Q-STUCR/L16	25	20	19	180	13	-8°	36	TC□T16T3□□	L60M4×8	T15
	S25R-STUCR/L16	31	25	24	200	17	-6°	40			
	S32S-STUCR/L16	39	32	30	250	18	-4°	50			
	S40T-STUCR/L16	50	40	38	300	25	-2°	60			

S类夹紧方式(内孔) S Type Internal Turning Tool Holders



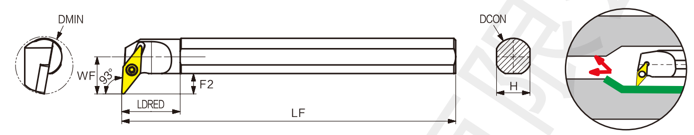
SVQCR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED	F2			
107.5° 	S20Q-SVQCR/L16	27	20	18	180	15	-8°	40	6.0	VC□T1604□□	L60M4×8	T15
	S25S-SVQCR/L16	32	25	23	200	18.5	-8°	45	6.9			
	S32S-SVQCR/L16	40	32	30	250	22	-8°	56	8.4			
	S40T-SVQCR/L16	50	40	37	300	27	-8°	64	9.4			

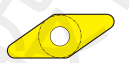
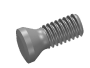
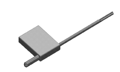


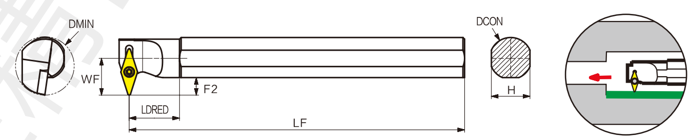
SVQBR/L	型号 Type	尺寸 Dimension								适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	Θ°	LDRED	F2			
107.5° 	S20Q-SVQBR/L16	27	20	18	180	15	-8°	40	6.0	VB□T1604□□	L60M4×8	T15
	S25S-SVQBR/L16	32	25	23	200	18.5	-8°	45	6.9			
	S32S-SVQBR/L16	40	32	30	250	22	-8°	56	8.4			
	S40T-SVQBR/L16	50	40	37	300	27	-8°	64	9.4			

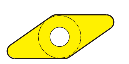
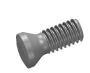
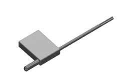
A/b

S类夹紧方式(内孔) S Type Internal Turning Tool Holders

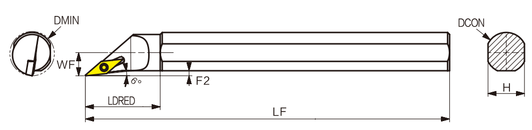


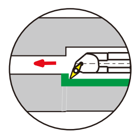
SVUCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
93° 	S16Q-SVUCR/L11	22	16	15	180	13.5	24	6	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVUCR/L16	31	20	19	180	19	32	9.5	VC□T1604□□	L60M4×8	T15
	S25R-SVUCR/L16	35	25	23	180	20	32	8.4			
	S32S-SVUCR/L16	42	32	30	250	22	49	8.4			
	S40T-SVUCR/L16	51	40	37	300	27	49	11			

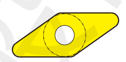
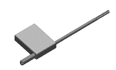


SVWCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
	S16Q-SVWCR/L11	25	16	15	180	14	25	6.9	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVWCR/L16	32	20	18	180	22	25	12.9	VC□T1604□□	L60M4×8	T15
	S25R-SVWCR/L16	36	25	23	200	22	30	10			
	S32S-SVWCR/L16	45	32	30	250	27	42	12.2			
	S40T-SVWCR/L16	55	40	37	300	30	50	11			

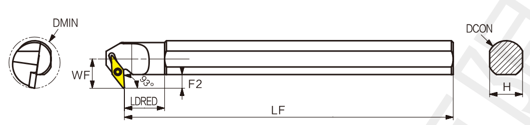
S类夹紧方式(内孔) S Type Internal Turning Tool Holders

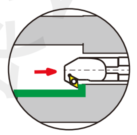


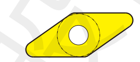
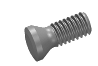
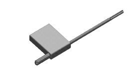


SVXCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
	S16Q-SVXCR/L11	20	16	15	180	9.5	35	2	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVXCR/L16	25	20	18	180	13	40	4	VC□T1604□□	L60M4×8	T15
	S25R-SVXCR/L16	32	25	23	180	14.5	40	3			
	S32S-SVXCR/L16	40	32	30	250	21	62	6			
	S40T-SVXCR/L16	50	40	37	300	24	62	5.5			

S类夹紧方式(内孔) S Type Internal Turning Tool Holders





SVZCR/L	型号 Type	尺寸 Dimension							适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
		DMIN	DCON	H	LF	WF	LDRED	F2			
93° 	S16Q-SVZCR/L11	22	16	15	180	13.5	15	6.5	VC□T1103□□	L60M2.5×5	T08
	S20Q-SVZCR/L11	28	20	18	180	16	22	7.5			
	S25R-SVZCR/L16	34	25	23	200	21	30	10	VC□T1604□□	L60M4×8	T15
	S32S-SVZCR/L16	42	32	30	250	23	35	9			
	S40T-SVZCR/L16	50	40	37	300	29	40	11			

B C D

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

外圆、端面切断切槽刀具 External and End Face Parting And Grooving Cutting Tools

Q F G D 25 25 R 22 52 H

Q	F	G	D	25	25	R	22	52	H
切槽刀代号 Q:切断切槽 P:切断 Application code Q:parting and grooving P:part off	加工方式 E:外圆切削 F:端面切削 Cutting application E:external cutting F:end face cutting	定位槽代号与刀片对应的定位槽代号一致并对应一定刀片刃宽范围 Positioning slot code	对应刀片的刀刃数代号 S:单刃 D:双刃 Cutting edge number S:single head D:double heads	切槽刀刀体高度 Tool body height	切槽刀刀体宽度 Tool body width	刀具的左右手 R:右 L:左 N:两者皆可 Cutting direction R:right l:left N:neutral	最大切削深度 Max cutting depth	端面切槽刀首次切削的最小直径(外圆切槽时缺省) The minimum diameter for initial end face cutting	端面切槽刀刀柄类 H:直头 L:弯头 End face cutting shank type: H: straight L: bend

内圆切槽刀具 Grooving tools

C 32 S – Q G D R 11 – 44

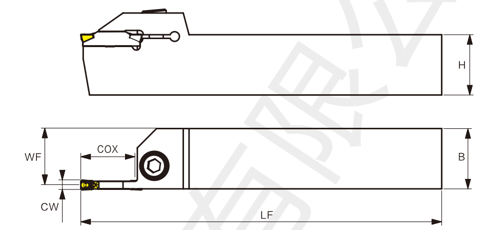
C	32	S	Q	G	D	R	11	44
切槽刀压紧方式 Clamp type	刀杆直径 Holder diameter	刀杆长度 Holder Length	切槽刀代号 Application code	定位槽代号 Positioning slot code	对应刀片刃数 Cutting edge number	刀具的左右手 R:右 L:左 Cutting direction (R:right L:left)	最大切削深度 Max cutting depth	最小加工孔径 Min diameter

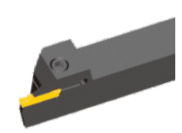
用于切断刀板的刀座 Part off blade

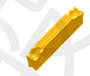
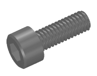
P H S 32 32

P	H	S	32	32
切断刀具 Parting off cutting tools	切断刀具基座 Parting off tool base	对应刀片刃数 Cutting edges numbers of insert	刀座规格 Blade model code	刀板高度 Blade height

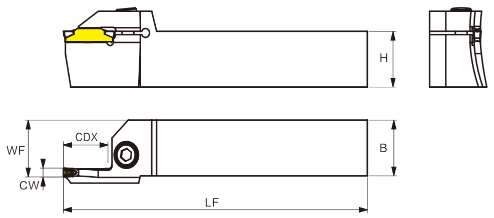
外圆切断、切槽刀具 External and End Face Parting And Grooving Cutting Tools

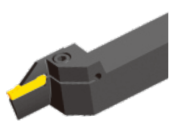




型号 Type		尺寸 Dimension HxB	LF	WF	CW	CDX	适用刀片 Adaptable Inserts 	螺钉 Screw 	扳手 Wrench 
QEED	1616R/L10	16x16	100	15	2.5	10	Q*ED*****–**	M5×20	S4
	1616R/L17	16x16	100	15	2.5	17	Q*ED*****–**		
	2020R/L10	20x20	125	19	2.5	10	Q*ED*****–**	M6×20	S5
	2020R/L17	20x20	125	19	2.5	17	Q*ED*****–**		
	2525R/L10	25x25	150	24	2.5	10	Q*ED*****–**		
	2525R/L17	25x25	150	24	2.5	17	Q*ED*****–**		
QEFD	1616R/L10	16x16	100	14.8	3	10	Q*FD****–**	M5×20	S4
	1616R/L17	16x16	100	14.8	3	17	Q*FD****–**		
	2020R/L10	20x20	125	18.8	3	10	Q*FD****–**	M6×20	S5
	2020R/L17	20x20	125	18.8	3	17	Q*FD****–**		
	2525R/L10	25x25	150	23.8	3	10	Q*FD****–**		
	2525R/L17	25x25	150	23.8	3	17	Q*FD****–**		
QEGD	2020R/L13	20x20	140	18.5	4	13	Q*GD****–**	M6×20	S5
	2020R/L22	20x20	140	18.5	4	22	Q*GD****–**		
	2525R/L13	25x25	150	23.5	4	13	Q*GD****–**		
	2525R/L22	25x25	150	23.5	4	22	Q*GD****–**		
	3232R/L13	32x32	170	30.5	4	13	Q*GD****–**		
	3232R/L22	32x32	170	30.5	4	22	Q*GD****–**		
QEHD	2525R/L13	25x25	150	23	5	13	Q*HD****–**		
	2525R/L22	25x25	150	23	5	22	Q*HD****–**		
QEHS	2525N30	25X25	150	12.5	5	30	Q*HS****–**		
QEHD	3232R/L13	32x32	170	30	5	13	Q*HD****–**		
	3232R/L22	32x32	170	30	5	22	Q*HD****–**		
QEHS	3232N30	32x32	170	16	5	30	Q*HS****–**		
QEKD	2525R/L13	25x25	150	22.6	6	13	Q*KD****–**		
	2525R/L22	25x25	150	22.6	6	22	Q*KD****–**		
QEKS	2525N30	25x25	150	12.5	6	30	Q*KS****–**		
QEKD	3232R/L13	32x32	170	29.6	6	13	Q*KD****–**		
	3232R/L22	32x32	170	29.6	6	22	Q*KD****–**		
QEKS	3232N30	32X32	170	16	6	30	Q*KS****–**		

端面切槽、车削刀具 Face Grooving and Turning Holders

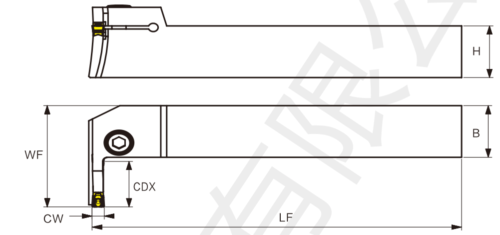


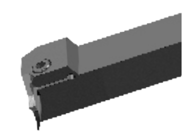


型号 Type		尺寸 Dimension HxB	LF	WF	CW	CDX	ϕD	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
QFFD	2525R/L10-48H	25x25	150	26	3	10	48-66	QTFD0303-MG	M6×20	S5
QFFD	2525R/L17-48H	25x25	150	26	3	17	48-66	QTFD0303-MG		
QFFD	2525R/L10-60H	25x25	150	26	3	10	60-80	QTFD0303-MG		
QFFD	2525R/L17-60H	25x25	150	26	3	17	60-80	QTFD0303-MG		
QFFD	2525R/L10-74H	25x25	150	26	3	10	74-110	QTFD0303-MG		
QFFD	2525R/L17-74H	25x25	150	26	3	17	74-110	QTFD0303-MG		
QFFD	2525R/L10-100H	25x25	150	26	3	10	100-150	QTFD0303-MG		
QFFD	2525R/L17-100H	25x25	150	26	3	17	100-150	QTFD0303-MG		
QFGD	2525R/L13-52H	25x25	150	26	4	13	52-72	QTGD0404-MG		
QFGD	2525R/L22-52H	25x25	150	26	4	22	52-72	QTGD0404-MG		
QFGD	2525R/L13-64H	25x25	150	26	4	13	64-100	QTGD0404-MG		
QFGD	2525R/L22-64H	25x25	150	26	4	22	64-100	QTGD0404-MG		
QFGD	2525R/L13-90H	25x25	150	26	4	13	90-140	QTGD0404-MG		
QFGD	2525R/L22-90H	25x25	150	26	4	22	90-140	QTGD0404-MG		
QFGD	2525R/L13-130H	25x25	150	26	4	13	130-230	QTGD0404-MG		
QFGD	2525R/L22-130H	25x25	150	26	4	22	130-230	QTHD0404-MG		
QFHD	2525R/L13-58H	25x25	150	26	5	13	58-96	QTHD0404-MG		
QFHD	2525R/L22-58H	25x25	150	26	5	22	58-96	QTHD0404-MG		
QFHD	2525R/L13-86H	25x25	150	26	5	13	86-140	QTHD0404-MG		
QFHD	2525R/L22-80H	25x25	150	26	5	22	86-140	QTHD0404-MG		
QFHD	2525R/L13-130H	25x25	150	26	5	13	130-200	QTHD0404-MG		
QFHD	2525R/L22-130H	25x25	150	26	5	22	130-200	QTHD0404-MG		
QFHD	2525R/L13-185H	25x25	150	26	5	13	185-400	QTHD0404-MG		
QFHD	2525R/L22-185H	25x25	150	26	5	22	185-400	QTHD0404-MG		
QFHD	2525R/L30-185H	25x25	150	26	6	30	185-400	QTKD0608-MG		
QFKD	2525R/L13-60H	25x25	150	26	6	13	60-100	QTKD0608-MG		
QFKD	2525R/L22-60H	25x25	150	26	6	22	60-100	QTKD0608-MG		
QFKD	2525R/L13-88H	25x25	150	26	6	13	88-180	QTKD0608-MG		
QFKD	2525R/L22-88H	25x25	150	26	6	22	88-180	QTKD0608-MG		
QFKD	2525R/L13-160H	25x25	150	26	6	13	160-400	QTKD0608-MG		
QFKD	2525R/L22-160H	25x25	150	26	6	22	160-400	QTKD0608-MG		
QFKD	2525R/L30-160H	25x25	150	26	6	30	160-400	QTKD0608-MG		

B
C
D

端面切槽、车削刀具 Face Grooving and Turning Holders

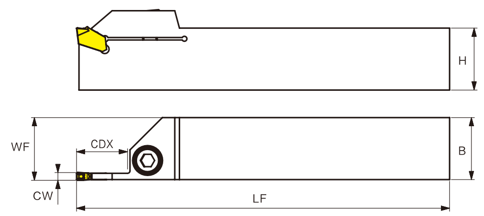


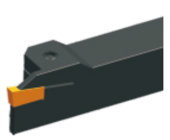


型号 Type		尺寸 Dimension HxB	LF	WF	CW	CDX	ϕD	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
QFFD	2525R/L10-48L	25x25	150	36.5	3	10	48-66	QTFD0303-MG	M6×20	S5
QFFD	2525R/L17-48L	25x25	150	43.5	3	17	48-66	QTFD0303-MG		
QFFD	2525R/L10-60L	25x25	150	36.5	3	10	60-80	QTFD0303-MG		
QFFD	2525R/L17-60L	25x25	150	43.5	3	17	60-80	QTFD0303-MG		
QFFD	2525R/L10-74L	25x25	150	36.5	3	10	74-110	QTFD0303-MG		
QFFD	2525R/L17-74L	25x25	150	43.5	3	17	74-110	QTFD0303-MG		
QFFD	2525R/L10-100L	25x25	150	36.5	3	10	100-150	QTFD0303-MG		
QFFD	2525R/L17-100L	25x25	150	43.5	3	17	100-150	QTFD0303-MG		
QFGD	2525R/L13-52L	25x25	150	39.5	4	13	52-72	QTGD0404-MG		
QFGD	2525R/L22-52L	25x25	150	48.5	4	22	52-72	QTGD0404-MG		
QFGD	2525R/L13-64L	25x25	150	39.5	4	13	64-100	QTGD0404-MG		
QFGD	2525R/L22-64L	25x25	150	48.5	4	22	64-100	QTGD0303-MG		
QFGD	2525R/L13-90L	25x25	150	39.5	4	13	90-140	QTGD0404-MG		
QFGD	2525R/L22-90L	25x25	150	48.5	4	22	90-140	QTGD0404-MG		
QFGD	2525R/L13-130L	25x25	150	39.5	4	13	130-230	QTGD0404-MG		
QFGD	2525R/L22-130L	25x25	150	48.5	4	22	130-230	QTHD0404-MG		
QFHD	2525R/L13-58L	25x25	150	39.5	5	13	58-96	QTHD0504-MG		
QFHD	2525R/L22-58L	25x25	150	48.5	5	22	58-96	QTHD0504-MG		
QFHD	2525R/L13-86L	25x25	150	39.5	5	13	86-140	QTHD0504-MG		
QFHD	2525R/L22-86L	25x25	150	48.5	5	22	86-140	QTHD0504-MG		
QFHD	2525R/L13-130L	25x25	150	39.5	5	13	130-200	QTHD0504-MG		
QFHD	2525R/L22-130L	25x25	150	48.5	5	22	130-200	QTHD0504-MG		
QFHD	2525R/L13-185L	25x25	150	39.5	5	13	185-400	QTHD0504-MG		
QFHD	2525R/L22-185L	25x25	150	48.5	5	22	185-400	QTHD0504-MG		
QFHD	2525R/L30-185L	25x25	150	56.5	6	30	185-400	QTSD0504-MG		
QFKD	2525R/L13-60L	25x25	150	39.5	6	13	60-100	QTKD0608-MG		
QFKD	2525R/L22-60L	25x25	150	48.5	6	22	60-100	QTKD0608-MG		
QFKD	2525R/L13-88L	25x25	150	39.5	6	13	88-180	QTKD0608-MG		
QFKD	2525R/L22-88L	25x25	150	48.5	6	22	88-180	QTKD0608-MG		
QFKD	2525R/L13-160L	25x25	150	39.5	6	13	160-400	QTKD0608-MG		
QFKD	2525R/L22-160L	25x25	150	48.5	6	22	160-400	QTKD0608-MG		
QFKD	2525R/L30-160L	25x25	150	56.5	6	30	160-400	QTKD0608-MG		

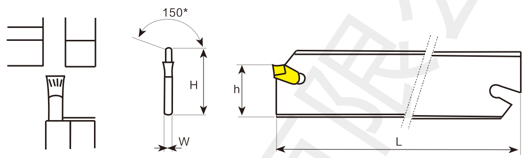
B
C
D

ZQ



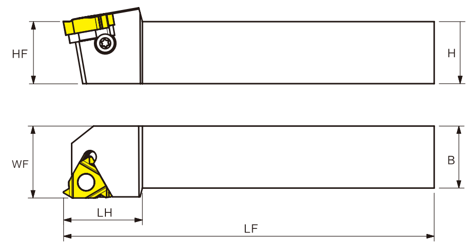
型号 Type		尺寸 Dimension H	B	LF	WF	CW	CDX	适用刀片 Adaptable Inserts	螺钉 Screw	扳手 Wrench
										
	ZQ1616R03	16	16	100	16.4	3	16	ZQMX3N11-1E	M5×17	S4
	ZQ1616R04	16	16	100	16.4	4	18	ZQMX4N11-1E		
	ZQ2020R03	20	20	125	20.4	3	20	ZQMX3N11-1E	M6×20	S5
	ZQ2020R04	20	20	125	20.4	4	20	ZQMX4N11-1E		
	ZQ2525R03	25	25	150	25.4	3	20	ZQMX3N11-1E		
	ZQ2525R04	25	25	150	25.4	4	20	ZQMX4N11-IE		
	ZQ2525R05	25	25	150	25.4	5	25	ZQMX5N11-1E		
	ZQ2525R06	25	25	150	25.7	6	32	ZQMX6N11-1E		
	ZQ3225R03	32	25	170	25.4	3	25	ZQMX3N11-1E	M6×22	S5
	ZQ3225R04	32	25	170	25.4	4	25	ZQMX4N11-1E		
	ZQ3225R05	32	25	170	25.4	5	25	ZQMX5N11-1E		
	ZQ3225R06	32	25	170	25.7	6	32	ZQMX6N11-1E		
	ZQ1616L03	16	16	100	16.4	3	16	ZQMX3N11-1E	M5×17	S4
	ZQ1616L04	16	16	100	16.4	4	16	ZQMX4N11-1E		
	ZQ2020L03	20	20	125	20.4	3	20	ZQMX3N11-1E	M6×20	S5
	ZQ2020L04	20	20	125	20.4	4	20	ZQMX4N11-1E		
	ZQ2525L03	25	25	150	25.4	3	20	ZQMX3N11-1E		
	ZQ2525L04	25	25	150	25.4	4	20	ZQMX4N11-1E		
	ZQ2525L05	25	25	150	25.4	5	25	ZQMX5N11-1E		
	ZQ2525L06	25	25	150	25.7	6	32	ZQMX6N11-1E		
	ZQ3225L03	32	25	170	25.4	3	25	ZQMX3N11-1E	M6×22	S5
	ZQ3225L04	32	25	170	25.4	4	25	ZQMX4N11-1E		
	ZQ3225L05	32	25	170	25.4	5	25	ZQMX5N11-1E		
	ZQ3225L06	32	25	170	25.7	6	32	ZQMX6N11-1E		

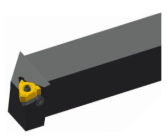
外圆切断的刀板 External Parting Blade



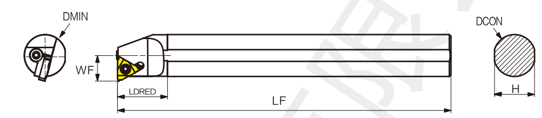
型号 Type		尺寸 Dimension H	W	L	h	适用刀片 Adaptable Inserts
						
	SPB326-S	26	2.4	110	21	ZQMX3N11-1E
	SPB426-S	26	3.2	110	21	ZQMX4N11-1E
	SPB526-S	26	4.0	110	21	ZQMX5N11-1E
	SPB626-S	26	5.2	110	21	ZQMX6N11-1E
	SPB332-S	32	2.4	150	25	ZQMX3N11-1E
	SPB432-S	32	3.2	150	25	ZQMX4N11-1E
	SPB532-S	32	4.0	150	25	ZQMX5N11-1E
	SPB632-S	32	5.2	150	25	ZQMX6N11-1E

外螺纹车刀 External Threading Turning Tools

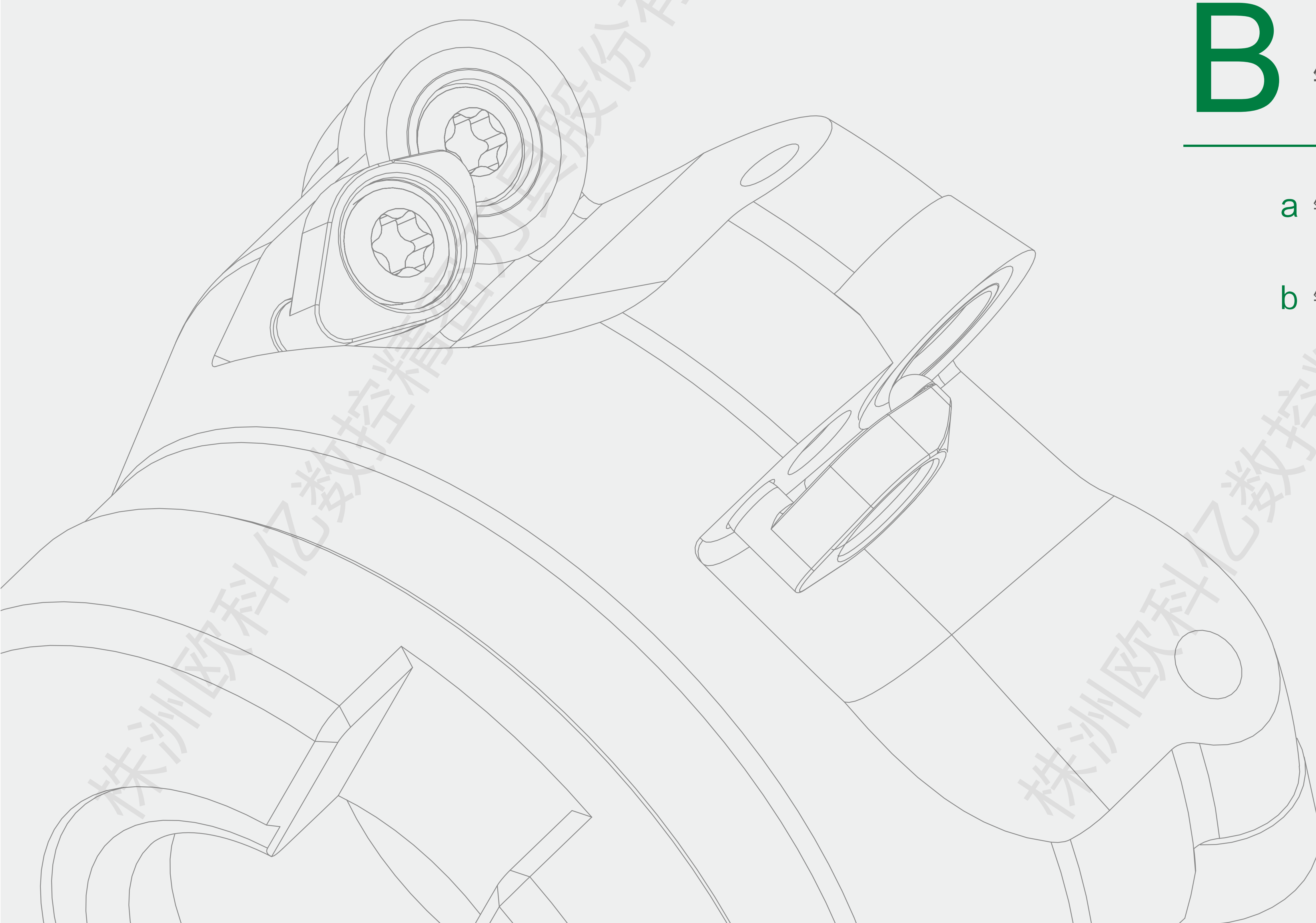


型号 Type		尺寸 Dimension H	HF	B	LF	WF	适用刀片 Adaptable Inserts	刀片螺钉 Inserts Screw	刀垫 Shim	刀垫螺钉 Shim Screw	扳手 Wrench
	SWR/L1010H11	10	10	10	100	16	R/LT11□□G-□□	L60 M2.5×6	—	—	T08
	SWR/L1212H11	12	12	12	100	16					
	SWR/L1616H16	16	16	16	100	20	R/LT16□□G-□□	L60 M3.5×12	TT16-□□	SS04008	T15 S2.5
	SWR/L2020K16	20	20	20	125	25					
	SWR/L2525M16	25	25	25	150	32					
	SWR/L3225P16	32	32	25	170	32					
	SWR/L3232P16	32	32	32	170	40					
	SWR/L2525M22	25	25	25	150	32	R/LT22□□G-□□	L60 M4×16	TT22-□□	SS04008	T20 S2.5
	SWR/L2525P22	32	32	25	170	32					
	SWR/L3232P22	32	32	32	170	40					
	SWR/4040S22	40	40	40	250	50					
	SWR/L3232P22	32	32	32	170	40	R/LT27□□G-□□	L60 M6×16	TT27-□□		
	SWR/L4040S27	40	40	40	250	50					

内螺纹车刀 External Threading Turning Tools



型号 Type		尺寸 Dimension DMIN	DCON	H	LF	WF	LDRED	适用刀片 Adaptable Inserts	螺钉 Screw	刀垫 Shim	刀垫螺钉 Shim Screw	扳手 Wrench
	SNR/L0010K11	10	12	9.5	125	6	32	R/LT11□□L-□□	L60 M2.5×5			T08
	SNR/L0012K11	12	16	11.5	125	6	32					
	SNR/L0013M16	13	16	15.5	150	10	32	R/LT16□□L-□□	L60 M3.5×8	TT16	SS04008	T15 S2.5
	SNR/L0016M16	16	20	15.5	150	12	40					
	SNR/L0020Q16	20	25	19.5	180	14	40					
	SNR/L0025R16	25	30	24	200	16	45					
	SNR/L32S16	32	38	30	250	20	55					
	SNR/L0025R22	25	30	24	200	18	45	R/LT22□□L-□□	L60 M4×16	TT22	SS04008	T20 S2.5
	SNR/L0032S22	32	38	30	250	22	55					
	SNR/L0040T22	40	46	38	300	26	60					
	SNR/L0032S27	32	40	30	250	24	55	R/LT27□□L-□□	L60 M6×16	TT27		
	SNR/L0040T27	40	50	38	300	30	60					



B 铣削刀具

MILLING TOOLS

株洲欧科亿数控精密刀具股份有限公司

铣削刀片命名规则 Milling Insert Naming Rule

形状代号 Shape

T P K N 22 04 ED T32 R — OPM

A	B	C
85°	82°	80°
D	E	H
55°	75°	
K	L	M
55°		86°
O	P	R
S	T	T
		75°
V	W	Z
35°	80°	其 它

断屑槽及夹固形式代号 Groove and Hole

T P K **N** 22 04 ED T32 R — OPM

代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile	代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile
B	有(Y)	无(N)	>65°	N	无(N)	无（N）	
H	有(Y)	单面(S)	>65°	R	无(N)	单面（S）	
C	有(Y)	无(N)	>65°	F	无(N)	双面（D）	
J	有(Y)	双面(D)	>65°	A	有(Y)	无（N）	
W	有(Y)	无(N)	≤65°	M	有(Y)	单面（S）	
T	有(Y)	单面(S)	≤65°	G	有(Y)	双面（D）	
Q	有(Y)	无(N)	≤65°	X			
U	有(Y)	双面(D)	≤65°				

主切削刃后角代号 Clearance Angle

T **P** K N 22 04 ED T32 R — OPM

A	B
3°	5°
C	D
7°	15°
E	F
20°	25°
G	N
30°	0°
P	O
11°	其它后角

公差代号 Tolerance

T P **K** N 22 04 ED T32 R — OPM

代号 Symbol	刀尖高度m 公差（mm） m(mm)	内接圆ΦI.C 公差（mm） d=I.C. (mm)	厚度S 公差（mm） s (mm)	（参考）M级精度详细情况（按形状、大小分）●刀尖高度公差(mm) (reference)M grade tolerance detail(according to shape, size.) Tolerance of insert nose height						
				内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
				6.35	±0.08	±0.08	±0.08	±0.11	±0.16	···
				9.525	±0.08	±0.08	±0.08	±0.11	±0.16	···
				12.7	±0.13	±0.13	±0.13	±0.15	···	···
A	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	···	···
F	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	···	···
C	±0.013	±0.025	±0.025	25.4	···	±0.18	···	···	···	···
H	±0.013	±0.013	±0.013	●内接圆ΦI.C公差（mm）●Tolerance of Inscribed Circle						
E	±0.025	±0.025	±0.025	内接圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
G	±0.025	±0.025	±0.13							
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	±0.1	±0.1	···	±0.1
N	±0.08−±0.18	±0.05−±0.13	±0.025	19.05	±0.1	±0.1	±0.1	±0.1	···	0.1
U	±0.13−±0.38	±0.08−±0.25	±0.1	25.4	···	±0.13	±0.13	···	···	±0.13

铣削刀片命名规则 Milling Insert Naming Rule

切削刃长度代号 Cutting Edge Length

T P K N **22** 04 ED T32 R — OPM

内切圆直径 Inscribed Circle 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					

刀片厚度代号 Thickness

T P K N 22 **04** ED T32 R — OPM

代号 Symbol	刀片厚度 Thickness(mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
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

厚度指刀片底面与切削刃最高部分之间的高度
The Height Between Insert Bottom And Nose

修光刃代号 Wiper land and clearance angle

T P K N 22 04 **ED** T32 R — OPM

Kr°		αn	
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	其它	F	25°
		G	30°
		N	0°
		P	11°
		Z	其它

切削刃倒棱代号 Cutting Egde Preparation(mm)

T P K N 22 04 ED **T32** R — OPM

F							K
E		0	5°	0	0.1		P
		1	10°	1	0.15		
T		2	15°	2	0.2		W
		3	20°	3	0.25		
		4	25°	4	0.3		
S		5	30°	5	0.35		不标
				6	0.4		
				7	0.45		

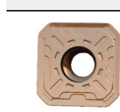
切削方向代号 Cutting direction

T P K N 22 04 ED T32 **R** — OPM

R	右 Right
L	左 Left
N	双向 Neutral

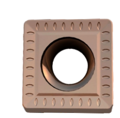
断屑槽型代号 ChipBreaker Code

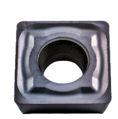
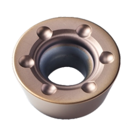
T P K N 22 04 ED T32 R — **OPM**

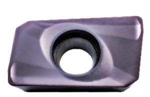
OPF	OPM
	
OPR	
	

铣削刀片一览表 Milling Insert Overview

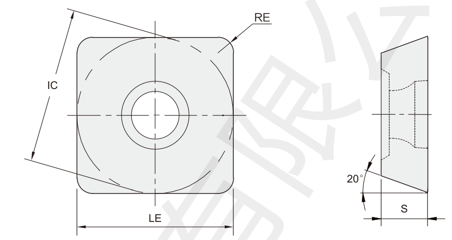
SEET-OPF	SEET-OPM	SEET-OPR	SEET-OPF	SEET-OPM	SEET-OPR
 P144	 P144	 P144	 P145	 P145	 P145

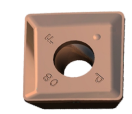
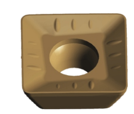
SPKN	SPKR-YR	APKT-OPM	APKT-HT-1	SPMT-OPM	SPMT
 P146	 P146	 P147	 P147	 P148	 P148

SPMT-MM	SPMT-HT-1	RCKT-OPM	RCKT-OPR	RDKW-BG	RDKX-BG
 P148	 P148	 P149	 P149	 P149	 P149

RPEW-BG	WPGT	SDMT-OPM	APMT-M	APMT-H	APMT-ZM
 P150	 P151	 P151	 P152	 P152	 P152

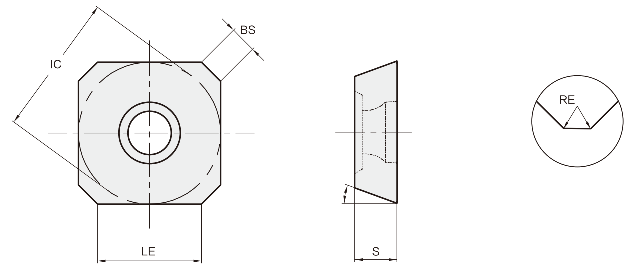
面铣刀片 Face Milling Insert

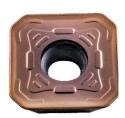


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	IC	S	D1	BS	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	SEET120308PER-OPF	13.29	13.29	4.042	4.1	R0.784	▲	●	●	●	●	●
	SEET120308PER-OPM	13.29	13.29	4.042	4.1	R0.784	▲	●	●	●	●	●
	SEET09T308PER-OPR	9.525	9.525	4.016	3.3	R0.786	▲	●	●	●	●	●

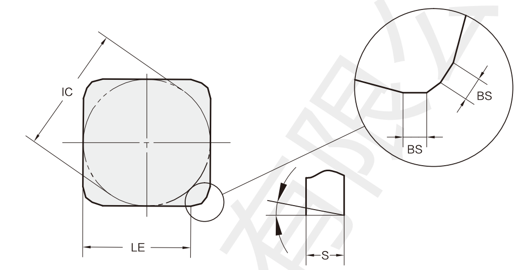
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

面铣刀片 Face Milling Insert

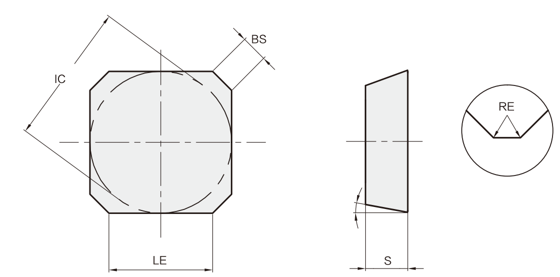


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	IC	S	D1	BS	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	SEET12T3-OPF	13.4	13.4	3.97	4.1	2.55	▲	●	●	●	●	●
	SEET12T3-OPM	13.4	13.4	3.97	4.1	2.55	▲	●	●	●	●	●
	SEET12T3-OPR	13.4	13.4	3.97	4.1	2.55	▲	●	●	●	●	●

面铣刀片 Face Milling Insert



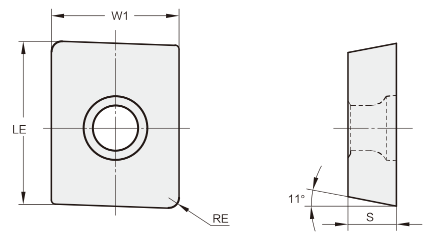
刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	IC	S	D1	BS	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	SPKN1203EDSKR	12.7	12.7	3.18		1.481	▲	●	●	●	●	●
	SPKN1203EDSKL	12.7	12.7	3.18		1.481	▲	●	●	●	●	●
	SPKN1504EDL	15.875	15.875	4.76		1.35	▲	●	●	●	●	●
	SPKN1504EDR	15.875	15.875	4.76		1.35	▲	●	●	●	●	●
	SPKN1504EDS11PL	15.875	15.875	4.76		1.068	▲	●	●	●	●	●
	SPKN1504EDS11PR	15.875	15.875	4.76		1.068	▲	●	●	●	●	●



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	IC	S	D1	BS	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	SPKR1504EDL-YR	15.875	15.875	4.51		R1	▲	●	●	●	●	●
	SPKR1504EDR-YR	15.875	15.875	4.51		R1	▲	●	●	●	●	●

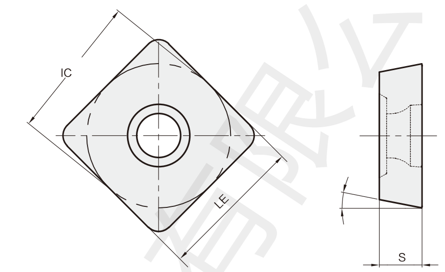
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

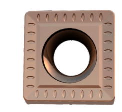
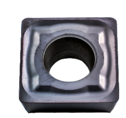
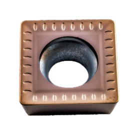
螺旋立铣刀铣削刀片 Indexable Helical Milling Inserts



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	W1	S	D1	RE	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	APKT150412-OPM	15.875	12.7	4.76	5.4	1.2	▲	●	●	●	●	●
	APKT150412-HT-1	15.875	12.7	4.76	5.4	1.2	▲	●	●	●	●	●

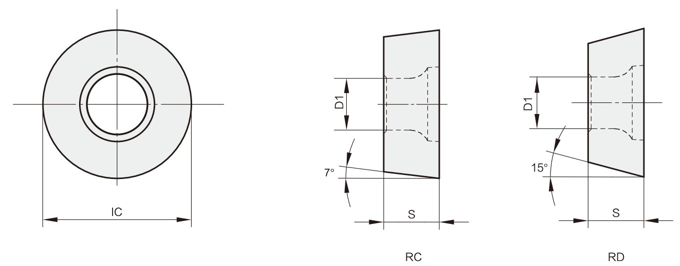
螺旋立铣刀铣削刀片 Indexable Helical Milling Inserts

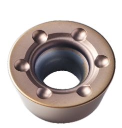


刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	IC	S	D1	RE	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	SPMT120408-OPM	12.7	12.7	4.76	5.5	0.8	▲	●	●	●	●	●
	SPMT090308	9.525	9.525	3.18	3.5	0.8	▲	●	●	●	●	●
	SPMT120408	12.7	12.7	4.76	5.5	0.8	▲	●	●	●	●	●
	SPMT120408-MM	12.7	12.7	4.76	5.5	0.8	▲	●	●	●	●	●
	SPMT120408-HT-1	12.7	12.7	4.76	5.5	0.8	▲	●	●	●	●	●

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

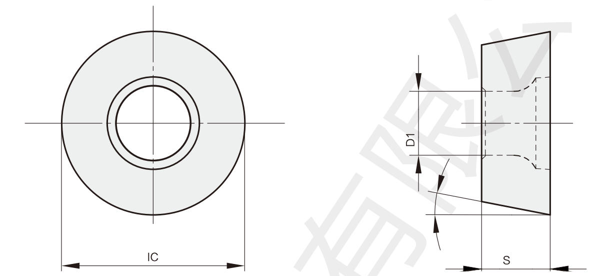
仿形及面铣刀片 Profiling Milling Insert



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)			涂层牌号 Grade					
		IC	S	D1	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	RCKT1606MO-OPM	16	6.35	5.56	▲	●	●	●	●	●
	RCKT1204MO-OPR	12	4.76	4.4	▲	●	●	●	●	●
	RCKT1606MO-OPR	16	6.35	5.56	▲	●	●	●	●	●
	RDKW0803MO-BG	8	3.18	3.4	▲	●	●	●	●	●
	RDKW10T3MO-BG	10	3.97	4.4	▲	●	●	●	●	●
	RDKW1204MO-BG	12	4.76	4.4	▲	●	●	●	●	●
	RDKW1604MO-BG	16	4.76	5.2	▲	●	●	●	●	●
	RDKW1605MO-BG	16	5.56	5.56	▲	●	●	●	●	●
	RDKW1606MO-BG	16	6.35	5.56	▲	●	●	●	●	●
	RDKX10T3MO-BG	10	3.97	4.4	▲	●	●	●	●	●
	RDKX1204MO-BG	12	4.76	4.4	▲	●	●	●	●	●
	RDKX1605MO-BG	16	5.56	5.56	▲	●	●	●	●	●

A

仿形及面铣刀片 Profiling Milling Insert

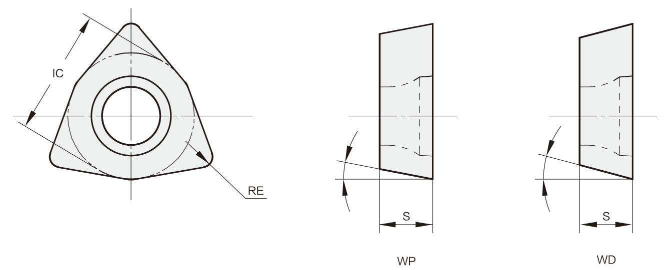


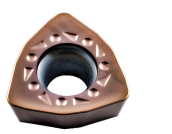
刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)			涂层牌号 Grade					
		IC	S	D1	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	RPEW0802MO-BG	8	2.38	3.5	▲	●	●	●	●	●
	RPEW1003MO-BG	10	3.18	4.6	▲	●	●	●	●	●

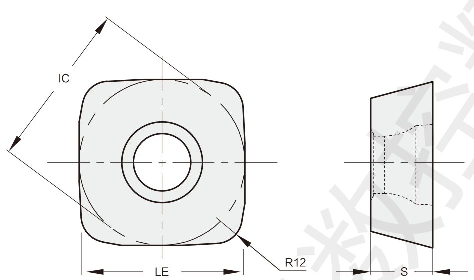
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

B/a
C
D

大进给铣削刀片 High Feed Milling Insert

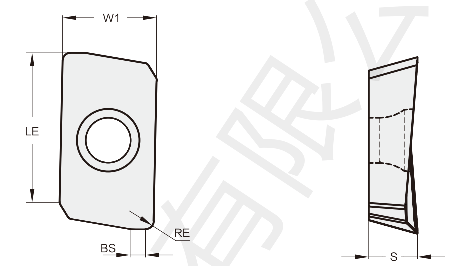


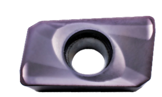
刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)				涂层牌号 Grade					
		IC	RE	S	D1	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	WPGT06T320ZTR	9.89	2	3.97	4.4	▲	●	●	●	●	●
	WPGT080520ZSR	12.85	2	5.5	5.5	▲	●	●	●	●	●
	WPGT080615ZSR	12.85	1.5	6.35	5.5	▲	●	●	●	●	●



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)						涂层牌号 Grade					
		IC	LE	D1	S	RE	α	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	SDMT120412-OPM	12.7	12.7	4.4	4.76	2	15°	▲	●	●	●	●	●

方肩台阶铣刀片 Squre Shoulder Milling Insert



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade					
		LE	W1	S	D1	RE	OP1315	OP1215	OP2202	OP1030	OC4025	OC4035
	APMT1135PDER-M	11.39	6.2	3.5	2.8	0.8	▲	●	●	●	●	●
	APMT160408PDER-M	17.12	9.2	4.76	4.4	0.8	▲	●	●	●	●	●
	APMT1604PDER-H	17.12	9.2	4.76	4.4	0.8	▲	●	●	●	●	●
	APMT1135PDER-H	11.39	6.2	3.5	2.8	0.8	▲	●	●	●	●	●
	APMT11T304-ZM	12.32	6.49	3.6	2.8	0.4	▲	●	●	●	●	●
	APMT11T308-ZM	12.32	6.49	3.6	2.8	0.8	▲	●	●	●	●	●
	APMT160408-ZM	17.56	9.5	5.76	4.4	0.8	▲	●	●	●	●	●

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

铣削刀具命名规则 Millng Tools Naming Rule

刀具类型 Type of Tools

FM 01 45° D50 A22 T3 L X

FM	EM	RM	CT	HM
面铣刀 Face Milling	方肩铣刀 Quare-shoulder Milling	圆刀片面铣 Round Insert Face Milling	倒角铣刀 Chamfer Milling	大给进 High Feed Milling

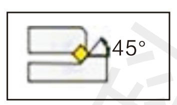
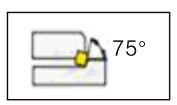
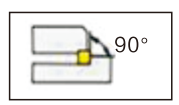
刀片类型编号 Insert Type Code

FM 01 45° D50 A22 T3 L X

▶ 查找刀片类型编号详见P155-P159页。
Please check insert P155-P159.

主偏角 Lead Angle

FM 01 45° D50 A22 T3 L X

45°	75°	90°
		

刀具加工部分直径 Cutting Tool Diameter

FM 01 45° D50 A22 T3 L X

铣削刀具命名规则 Millng Tools Naming Rule

刀具安装部位结构 Adaptor Type

FM 01 45° D50 A22 T3 L X

A	B	C	D	P	W	MT
A型接口 A interface	B型接口 B interface	C型接口 C interface	D型接口 D interface	圆形直柄 Cylindrical shank	侧固式 Lateral solid	莫氏锥柄 Morse taper shank

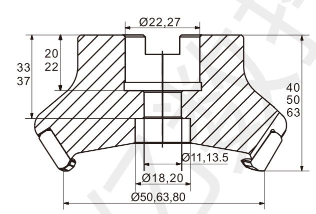
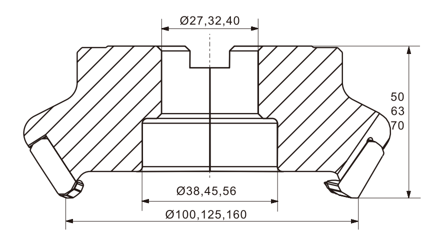
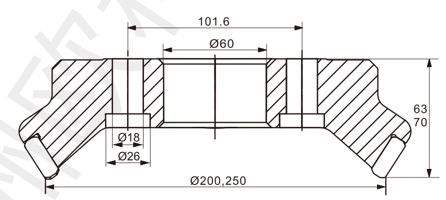
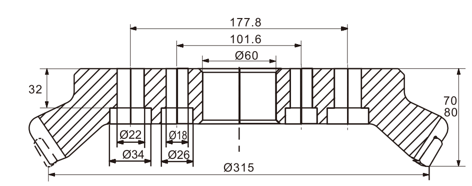
齿数 Teeth Number

FM 01 45° D50 A22 T3 L X

刀具长度 Length

FM 01 45° D50 A22 T3 L X

套式结构Shell structure

A型接口 Type of Adapter		B型接口 Type of Adapter	
	GB5342-96规定的ϕ50-ϕ80套式面铣刀 GB5342-96 of ϕ50-ϕ80 shell Facmilling Cutter		GB5342-96规定的ϕ100-ϕ160套式面铣刀 GB5342-96 of ϕ100-ϕ160 shell Facmilling Cutter
C型接口 Type of Adapter		D型接口 Type of Adapter	
	GB5342-96规定的ϕ200-ϕ250套式面铣刀 GB5342-96 of ϕ50-ϕ80 shell Facmilling Cutter		GB5342-96规定的ϕ315及以上的套式面铣刀 GB5342-96 of ϕ315Facmilling Cutter

刀片类型编号 Insert Type Code

面铣刀 Facing Milling

角度 Angle	编号 Code	适用刀片 Applicable insert	基本尺寸 Dimensions(mm) LE	IC	S	D1	RE	be	BS	a	I.W	涂层牌号 Grade OP1030	OP1215	OP1315	OP2202
45°	01	SE□T12T3	13.4	13.4	3.97	4.1			2.55			●	▲	▲	●
	02	SE□N1203	12.7	12.7	3.18							●	▲	▲	●
	03	SEKT1204	12.7	12.7	4.76	5.56				11°		●	▲	▲	●
75°	04	SPEN1203		12.7	3.18							●	▲	▲	●
90°	05	TPKN2204	22	12.7	4.76			1.4	0.7	11°		●	▲	▲	●
	06	SEET09T308PER	9.525	9.525	4.01	3.3	0.8					●	▲	▲	●
	07	APMT11T3□□	12.32		3.6	2.8					6.49	●	●	▲	●
	08	APMT1604□□	17.56		5.76	4.4	0.8				9.5	●	●	▲	●
	09	APKT150412	15.875		4.76	5.4	1.2				12.7	●	●	▲	●

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

刀片类型编号 Insert Type Code

圆刀片刀盘 Round Insert

角度 Angle	编号 Code	适用刀片 Applicable insert	基本尺寸 Dimensions(mm) LE	IC	S	D1	RE	be	BS	a	I.W	涂层牌号 Grade OP1030	OP1215	OP1315	OP2202
RM（C）	01	RCKT10T3MO	10	10	3.97	4.4						●	▲	●	●
	02	RCKT1204MO		12	4.76	4						●	▲	●	●
	03	RCKT1606MO		16	6.35	5.56						●	▲	●	●
	04	RCKT2006MO		20	6.35	6.55						●	●	▲	
RM（D）	01	RDKW0803MO		8	3.18	3.4						●	▲	▲	
	02	RDKW10T3MO		10	3.97	4.4						●	▲	▲	
	03	RDKW1204MO		12	4.76	4.4						●	▲	▲	
	04	RDKW1605MO		16	5.56	5.5						●	▲	▲	●
	05	RDKW2006MO		20	6.35	6.5						●	▲	▲	●
RM（P）	01	RPMT/W1204MO	12	12	4.76	4.4						●	▲	▲	●
	02	RPMT1606MO	16	16	6.35	5.56						●	▲	▲	●

刀片类型编号 Insert Type Code

大进给 High Feed Milling

HM	编号 Code	适用刀片 Applicable insert	基本尺寸 Dimensions(mm) LE	IC	S	D1	RE	be	BS	a	I.W	涂层牌号 Grade OP1030	OP1215	OP1315	OP2202
	10	WPGT050315ZSR		7.94	3.5	4	1.5			11°		●	●	▲	●
	11	WPGT060415ZSR		9.525	4.2	4.4	1.5			11°		●	●	▲	●
	12	WPGT080615ZSR		12.85	6.35	5.5	1.5			11°		●	●	▲	●
	13	WPGT090715ZSR		15	7	5.5	2.5			11°		●	●	▲	●
	14	SDMT09T3-OPM		9	3.5	3.5	16					●	●	▲	●
	15	SDMT1204-OPM		12.7	4.76	4.4	15					●	●	▲	●

A
B/b
C
D

刀片类型编号 Insert Type Code

倒角铣刀 Chamfer Milling Insert

角度 Angle	编号 Code	适用刀片 Applicable insert	基本尺寸 Dimensions(mm) LE	IC	S	D1	RE	a	涂层牌号 Grade OP1030	OP1215	OP1315	OP2202
30° 45° 60°	01	SPMT120408	12.7	12.7	4.76	5.5	0.8	11°	●	▲	▲	●

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

株洲欧科亿数控精密刀具股份有限公司

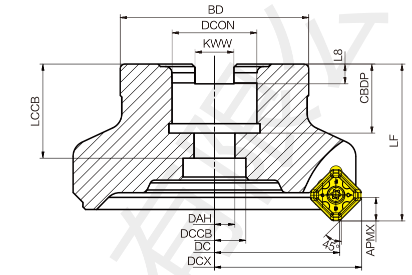
刀片类型编号 Insert Type Code

可旋转浅孔钻 Indexable shallow Hole Drilling Insert

角度 Angle	编号 Code	适用刀片 Applicable insert	基本尺寸 Dimensions(mm) L	ΦI.C	S	Φd	r	be	bs	a	I.W	涂层牌号 Grade OP1030	OP1215	OP1315	OP2202
RM（C）	01	SPGT050204-OPM	13.4	13.4	3.97	4.1						●	▲	▲	●
	01	SPGT060204-OPM	6	6	2.38	2.6						●	▲	▲	●
	01	SPGT07T308-OPM	7.94	7.94	3.97	2.8						●	▲	▲	●
	01	SPGT090408-OPM	9.8	9.8	4.3	4.1						●	▲	▲	●
RM（D）	01	SPGT110408-OPM	11.5	11.5	4.76	4.6						●	▲	▲	●
	01	SPGT140512-OPM	14.3	14.3	5.2	5.75						●	▲	▲	●
	02	WCMX030208-ZK	3.8	5.56	2.38	2.8						●	▲	▲	●
	02	WCMX040208-ZK	4.3	6.35	2.38	3.1						●	▲	▲	●
	02	WCMX050308-ZK	5.4	7.94	3.18	3.2						●	▲	▲	●
RM（P）	02	WCMX06T308-ZK	6.4	9.525	3.97	3.7						●	▲	▲	●
	02	WCMX080412-ZK	8.6	12.7	4.76	4.3						●	▲	▲	●

▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

面铣刀具 Face Milling Tools

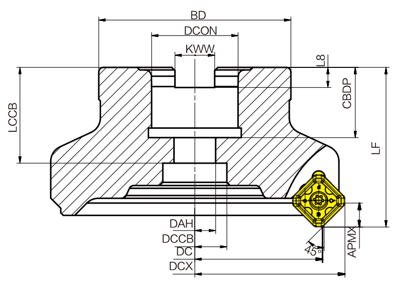


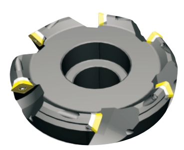
型号 Type	刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
FM01-45° -D50-A22-T4	4	50	62.4	40	22	20		11		40	10.4	6.3	6	0.3	A
FM01-45° -D63-A22-T5	5	63	75.4	40	22	20		11		50	10.4	6.3	6	0.5	A
FM01-45° -D80-A27-T6	6	80	92.4	50	27	22		13		60	12.4	7	6	1.3	A
FM01-45° -D100-B32-T7	7	100	112.4	50	32		28		45	70	14.4	8	6	1.8	B
FM01-45° -D125-B40-T8	8	125	137.4	63	40		35		56	80	16.4	9	6	3.1	B
FM01-45° -D160-C40-T10	10	160	172.4	63	40		35		56	100	16.4	9	6	5.1	C
FM01-45° -D200-C63-T12	12	200	212.4	63	60		32		150	160	25.7	14	6	6.8	C
FM01-45° -D250-C60-T14	14	250	262.4	63	60		32		190	200	25.7	14	6	11.2	C
FM01-45° -D315-D60-T18	18	315	327.4	70	60		32		250	270	25.7	14	6	20.8	D

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀垫 Shim	螺套 Thread Sleeve	刀片螺钉 Insert Screw	扳手 Wrench	扳手 Wrench
01	SE□T12T3	S13BS	SM0507	TL60 M3.5×10	T15T	S3.5

面铣刀具 Face Milling Tools

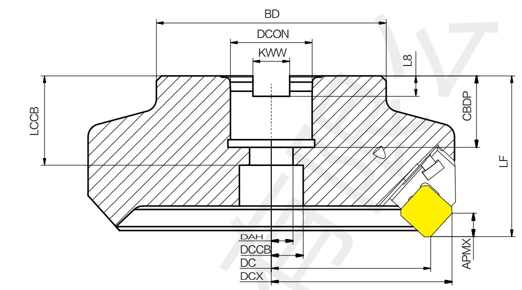


型号 Type		刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
 疏齿不等齿距	FM01-45° -D50-A22-T3	3	50	62.4	40	22	20		11		40	10.4	6.3	6	0.3	A
	FM01-45° -D63-A22-T4	4	63	75.4	40	22	20		11		50	10.4	6.3	6	0.5	A
	FM01-45° -D80-A27-T4	4	80	92.4	50	27	22		13		60	12.4	7	6	1.2	A
	FM01-45° -D100-B32-T5	5	100	112.4	50	32		28		45	70	14.4	8	6	1.8	B
	FM01-45° -D125-B40-T6	6	125	137.4	63	40		35		56	80	16.4	9	6	3.55	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀垫 Shim	螺套 Thread Sleeve	刀片螺钉 Insert Screw	扳手 Wrench	扳手 Wrench
01	SE□T12T3	S13BS	SM0508	TL60 M3.5×10	T15T	S3.5

面铣刀具 Face Milling Tools



型号 Type		刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	FM02-45° -D80-A27-T4	4	80	103	50	27	22		13		60	12.4	7	5.5	1.8	A
	FM02-45° -D100-B32-T5	5	100	122	50	32		28		45	80	14.4	8	5.5	2.4	B
	FM02-45° -D125-B40-T6	6	125	147	63	40		35		56	80	16.4	9	5.5	4.4	B
	FM02-45° -D160-B40-T8	8	160	181	63	40		35		56	100	16.4	9	5.5	6.4	B
	FM02-45° -D200-C60-T10	10	200	221	63	60					160	25.7	14	5.5	8.5	C
	FM02-45° -D250-C60-T12	12	250	270	63	60				180	200	25.7	14	5.5	14.1	C
	FM02-45° -D315-D60-T15	15	315	353	63	60				230	250	25.7	14	5.5	22.2	D

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀夹 Tools chuck	压块 Clamp	双头螺钉 Double Headed Screw	刀夹螺钉 Tools chuck screw	扳手 Wrench
02	SE□N1203	LSE12R/L	W01R/L	DM8×21X	LOM5×15.1	S3

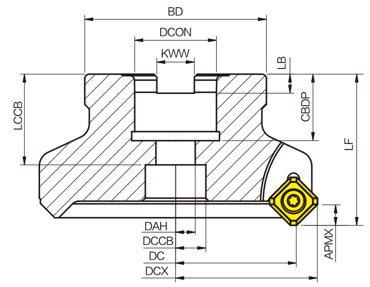
A

B/b

C

D

面铣刀具 Face Milling Tools



型号 Type		刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	DCX	KWW	L8	APMX	接口形式 Inter Face
	FM03-45° -D50-A22-T4	4	50	50	22	20		11		40	64	10.4	6.3	6	A
	FM03-45° -D63-A22-T4	4	63	50	22	20		11		50	77	10.4	6.3	6	A
	FM03-45° -D80-A27-T5	5	80	50	27	22		13		60	94	12.4	7	6	A
	FM03-45° -D100-A32-T5	5	100	50	32		28		45	70	114	14.4	8	6	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	螺钉 Screw	压板 Pressing Plate	扳手 Wrench
03	SEKT1204	M5×11		T20

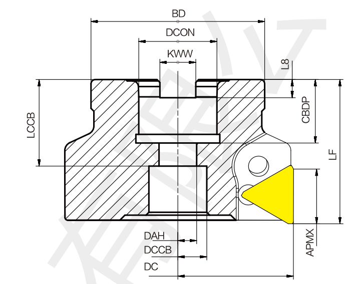
A

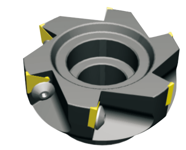
B/b

C

D

面铣刀具 Face Milling Tools



型号 Type		刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	FM05-90° -D63-A22-T3	3	63	50	22	20		11		50	10.4	6.3	15	0.5	A
	FM05-90° -D80-A27-T4	4	80	50	27	22		13		60	12.4	7	15	0.9	A
	FM05-90° -D100-A32-T5	5	100	50	32		28		45	70	14.4	8	15	1.8	B
	FM05-90° -D125-B40-T6	6	125	63	40		35		56	80	16.4	9	15	2.5	B
	FM05-90° -D160-B40-T7	7	160	63	40		35		56	100	16.4	9	15	3.6	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
05	TPKN2204	MYL8×18	S4

面铣刀具 Face Milling Tools

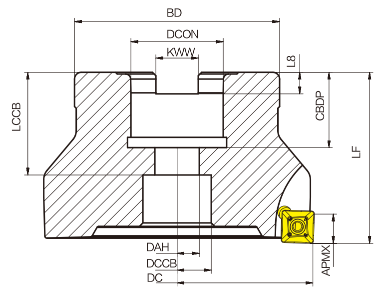


图	型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	FM06-90° -D50-A22-T5	5	50	40	22	20		11		40	10.4	6.3	6.5	0.3	A
	FM06-90° -D63-A22-T6	6	63	40	22	20		11		50	10.4	6.3	6.5	0.5	A
	FM06-90° -D80-A27-T8	8	80	50	27	22		13		60	12.4	7	6.5	0.9	A
	FM06-90° -D100-B32-T8	8	100	50	32		28		45	70	14.4	8	6.5	1.8	B
	FM06-90° -D100-B32-T10	10	100	50	32		28		45	70	14.4	8	6.5	2.5	B
	FM06-90° -D125-B40-T12	12	125	63	40		35		56	80	16.4	9	6.5	3.6	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
06	SEET09T308PER	TL60 M3×7	T08T

面铣刀具 Face Milling Tools

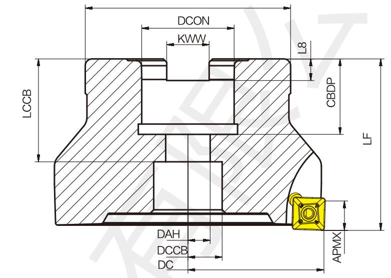
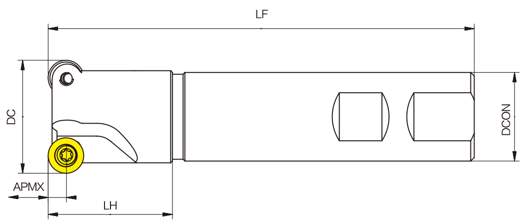


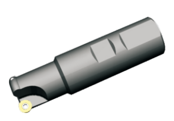
图	型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	FM07-90° -D50-A22-T3	3	50	40	22	20		11		40	10.4	6.3	10	0.3	A
	FM07-90° -D63-A22-T4	4	63	40	22	20		11		50	10.4	6.3	10	0.65	A
	FM07-90° -D80-A27-T4	4	80	50	27	22		13		60	12.4	7	10	0.9	A
	FM07-90° -D100-B32-T5	5	100	50	32		28		45	70	14.4	8	10	1.2	B
	FM07-90° -D125-B40-T6	6	125	63	40		35		56	80	16.4	9	10	3.1	B
	FM07-90° -D160-C40-T8	8	160	63	40		35		112	100	16.4	9	10	4.1	C
	FM07-90° -D200-C60-T10	10	200	63	60		32		150	140	25.7	14	10	6.1	C
	FM07-90° -D250-C60-T12	12	250	63	60		32		215	200	25.7	14	10	10.9	C
	FM07-90° -D50-A22-T4	4	50	40	22	20		11		40	10.4	6.3	10	0.3	A
	FM07-90° -D63-A22-T5	5	63	40	22	20		11		50	10.4	6.3	10	0.65	A
	FM07-90° -D80-A27-T6	6	80	50	27	22		13		60	12.4	7	10	0.9	A
	FM07-90° -D100-B32-T7	7	100	50	32		28		45	70	14.4	8	10	1.2	B
	FM07-90° -D125-B40-T8	8	125	63	40		35		56	80	16.4	9	10	3.1	B
	FM07-90° -D160-C40-T12	12	160	63	40		35		112	100	16.4	9	10	4.1	C
	FM07-90° -D50-A22-T5	5	50	40	22	20		11		40	10.4	6.3	10	0.3	A
	FM07-90° -D63-A22-T6	6	63	40	22	20		11		50	10.4	6.3	10	0.65	A
	FM07-90° -D80-A27-T8	8	80	50	27	22		13		60	12.4	7	10	0.9	A
	FM07-90° -D100-B32-T10	10	100	50	32		28		45	70	14.4	8	10	1.2	B
	FM07-90° -D125-B40-T12	12	125	63	40		35		56	80	16.4	9	10	3.1	B
	FM07-90° -D160-C40-T14	14	160	63	40		35		112	100	16.4	9	10	4.1	C
	FM07-90° -D200-C60-T16	16	200	63	60		32		150	140	25.7	14	10	6.1	C
	FM07-90° -D250-C60-T18	18	250	63	60		32		215	200	25.7	14	10	10.9	C
	FM07-90° -D315-D60-T24	24	315	63	60		32		260	250	25.7	14	10	21.6	D

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀垫 Shim	螺套 Thread Sleeve	刀片螺钉 Insert Screw	扳手 Wrench	扳手 Wrench
07	SEET120308PER	S12BSX	SM0508	TL60 M3.5×10	T15T	S3.5

面铣刀具 Face Milling Tools

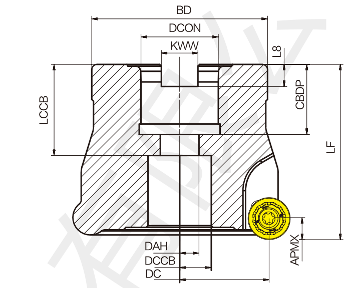


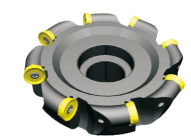
型号 Type		刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
	RM(C)01-D25-W20-T2	2	25	30	100	25	5	0.2	W
	RM(C)01-D32-W25-T2	2	32	35	120	32	5	0.5	W
	RM(C)02-D40-W32-T3	3	40	40	120	32	6	0.7	W
	RM(C)02-D50-W32-T3	5	50	40	120	32	6	0.8	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
01	RCKT10T3MO	TL60 M4×10	T15
02	RCKT1204MO	TL60 M4×10	T15

面铣刀具 Face Milling Tools



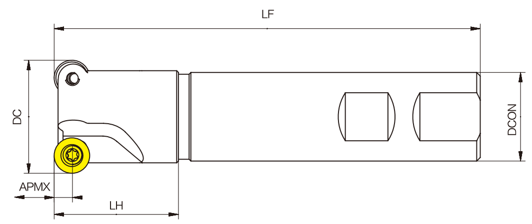
型号 Type		刃数 Edge	DC	DCX	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	RM(C)02-D63-A22-T4	4	63	50	50	22	20		11		50	10.4	6.3	6	0.7	A
	RM(C)03-D80-B27-T5	5	80	50	50	27		30		38	60	12.4	7	8	0.7	B
	RM(C)03-D100-B32-T6	6	100	50	50	32		28		45	70	14.4	8	8	1.2	B
	RM(C)03-D125-B40-T7	7	125	63	63	40		35		56	80	16.4	9	10	2.2	B
	RM(C)03-D160-B40-T8	8	160	63	63	40		35		56	100	16.4	9	10	4.2	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
02	RCKT1204MO-OPR	TL60 M4×10	T15T
03	RCKT1606MO-OPR	TL60 M5×13	T20T
04	RCKT2006MO-OPR	TL60 M6×16	T25T

株洲欧科亿数控精密刀具股份有限公司

面铣刀具 Face Milling Tools

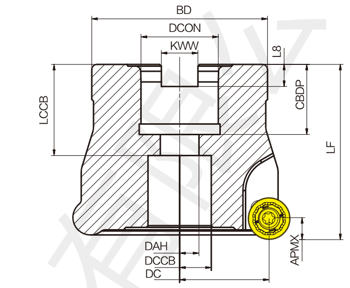


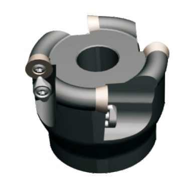
型号 Type		刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
	RM(D)01-D16-W16-T2	2	16	25	100	16	4	0.1	W
	RM(D)01-D25-W25-T2	2	25	30	100	25	4	0.3	W
	RM(D)02-D32-W32-T2	2	32	40	120	32	5	0.7	W
	RM(D)03-D40-W40-T3	3	40	40	120	32	6	0.7	W
	RM(D)03-D50-W50-T4	4	50	40	120	32	6	0.8	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
01	RDKW0803MO	TL60 M3 × 7	T10
02	RDKW10T3MO	TL60 M4 × 10	T15
03	RDKW1204MO	TL60 M4 × 10	T15

面铣刀具 Face Milling Tools

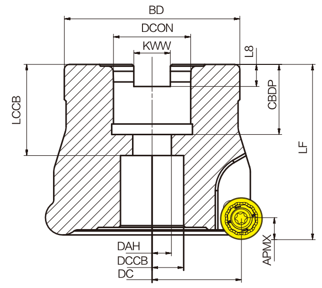


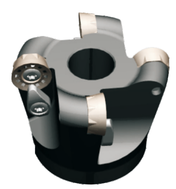
型号 Type		刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	RM(D)03-D50-A22-T3	3	50	50	22	20		11		40	10.4	6.3	6	0.3	A
	RM(D)03-D63-A22-T4	4	63	50	22	20		11		50	10.4	6.3	6	0.5	A
	RM(D)04-D80-B27-T5	5	80	50	27		30		38	60	12.4	7	8	1.2	B
	RM(D)04-D100-B32-T6	6	100	50	32		28		45	70	14.4	8	8	1.6	B
	RM(D)05-D125-B40-T6	6	125	63	40		35		56	80	16.4	9	10	1.9	B
	RM(D)03-D160-B40-T7	7	160	63	40		35		56	100	16.4	9	10	3.7	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	压板 Pressing Plate	扳手 Wrench
03	RDKW1204MO	TL60 M4 × 10	WD204	T15T
04	RDKW1605MO	TL60 M5 × 12	WD208	T20T
05	RDKW2006MO	TL60 M6 × 16		T25T

面铣刀具 Face Milling Tools



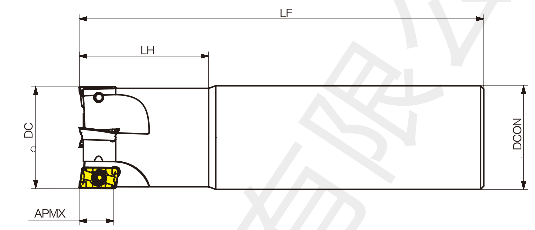


型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
RM(P)01-D50-A22-T4	4	50	40	22	20		11		40	10.4	6.3	6	0.4	A
RM(P)01-D63-A22-T5	5	63	45	22	20		11		50	10.4	6.3	6	0.7	A
RM(P)01-D80-B27-T6	6	80	50	27		30		38	60	12.4	7	8	1.2	B
RM(P)02-D63-A22-T4	4	63	50	22	20		11		40	10.4	6.3	8	0.7	A
RM(P)02-D80-A22-T5	5	80	50	27	22		13		60	12.4	7	8	1.2	A
RM(P)02-D100-B32-T6	6	100	63	32		28		45	70	14.4	8	8	1.6	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	压板 Pressing Plate	扳手 Wrench
01	RPMT1204MO	TL60 M4×10	WD204	T15T
02	RPMT1606MO	TL60 M5×12	WD208	T20T

方肩铣刀 Square Shoulder Milling

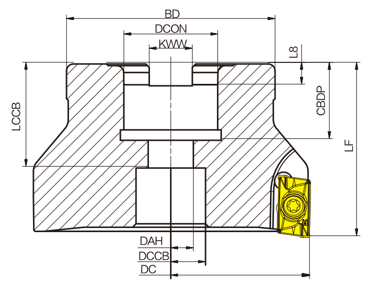


型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
EM08-D12-P16-L85-T1	1	12	25	85	16	10.5	0.1	Z
EM08-D16-P16-L90-T2	2	16	25	90	16	10.5	0.1	Z
EM08-D20-P20-L100-T2	2	20	30	100	20	10.5	0.2	Z
EM08-D25-P25-L115-T3	3	25	35	115	25	10.5	0.4	Z
EM08-D32-P32-L125-T4	4	25	40	125	32	10.5	0.7	Z
EM08-D12-W16-L85-T1	1	12	25	85	16	10.5	0.1	W
EM08-D16-W16-L90-T2	2	16	25	90	16	10.5	0.1	W
EM08-D20-W20-L100-T2	2	20	30	100	20	10.5	0.2	W
EM08-D25-W25-L115-T3	3	25	35	115	25	10.5	0.4	W
EM08-D32-W32-L125-T4	4	25	40	125	32	10.5	0.7	W
EM09-D25-P25-L115-T2	2	25	35	115	16	10.5	0.4	Z
EM09-D32-P32-L125-T3	3	32	40	125	20	10.5	0.7	Z
EM09-D40-P32-L130-T4	4	40	42	130	25	10.5	0.8	Z
EM09-D25-W25-L115-T2	2	25	35	115	16	10.5	0.4	W
EM09-D32-W32-L125-T3	3	32	40	125	20	10.5	0.7	W
EM09-D40-W32-L130-T4	4	40	42	130	25	10.5	0.8	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
08	APMT11T3□□	TL60 M2.5×6.5	T08
09	APMT1604□□	TL60 M4×10	T15

方肩铣刀 Square Shoulder Milling

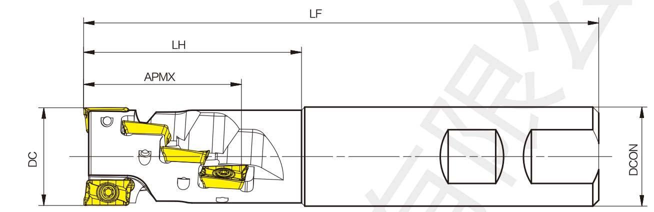


型号 Type		刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	EM08-D50-A22-T6	6	50	40	22	20		11		40	10.4	6.3	11	0.3	A
	EM08-D63-A22-T8	8	63	40	22	20		11		50	10.4	6.3	11	0.6	A
	EM08-D80-A27-T8	8	80	50	27	22		13		60	12.4	7	11	1.2	A
	EM08-D100-B32-T10	10	100	50	32		28		45	60	14.4	8	11	1.7	B
	EM09-D50-A22-T5	5	50	40	22	20		11		40	10.4	6.3	15.5	0.3	A
	EM09-D63-A22-T6	6	63	40	22	20		11		50	10.4	6.3	15.5	0.5	A
	EM09-D80-A27-T7	7	80	50	27	22		13		60	12.4	7	15.5	1.1	A
	EM09-D100-B32-T8	8	100	50	32		28		45	70	14.4	8	15.5	1.6	B
	EM09-D125-B40-T10	10	125	63	40		35		56	80	16.4	9	15.5	3.2	B
	EM09-D160-B40-T10	10	160	63	40		35		56	100	16.4	9	15.5	3.2	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
08	APMT11T3□□	TL60 M2.5×6.5	T08
09	APMT1604□□	TL60 M4×10	T15

方肩铣刀 Square Shoulder Milling

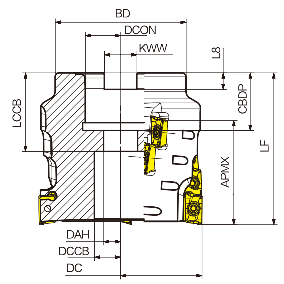


型号 Type		刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
	EM08-D20-W22-L120-T1	1	20	45	120	20	29	0.3	W
	EM08-D25-W25-L130-T2	2	25	55	130	25	39	0.4	W
	EM08-D32-W32-L140-T2	2	32	65	140	32	48	0.7	W
	EM08-D40-W32-L150-T2	2	40	75	150	32	55	1.3	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
08	APMT11T3□□	TL60 M2.5×6.5	T08

方肩铣刀 Square Shoulder Milling

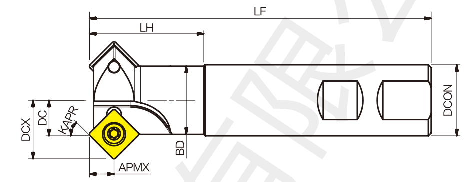


型号 Type		刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	EM08–D50–A22–T4	4	50	58	22	20		11		40	10.4	6.3	39	0.5	A
	EM08–D63–A27–T4	4	63	58	27	22		13		50	12.4	7	39	0.9	A
	EM08–D80–B32–T5	5	80	63	32		28		45	60	14.4	8	39	1.3	B
	EM08–D100–B40–T6	6	100	63	40		35		56	70	16.4	9	39	2.1	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
08	APMT11T3□□	TL60 M2.5×6.5	T08T

倒角铣刀 Chamfer Milling Tools

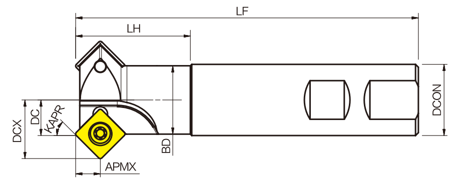


型号 Type		刃数 Edge	KAPR	DC	DCX	LH	LF	DCON	BD	APMX	重量 Weight	接口形式 Inter Face
	CT01–45° –D12–P20–T1	1	45	12	28.1	40	100	20	15	8.3	0.2	Z
	CT01–45° –D12–W20–T1	1	45	12	28.1	40	100	20	15	8.3	0.2	W
	CT01–45° –D25–P25–T2	2	45	25	41.3	40	120	25	24	8.3	0.8	Z
	CT01–45° –D25–W25–T2	2	45	25	41.3	40	120	25	24	8.3	0.6	W
	CT01–45° –D32–P32–T3	3	45	32	49.3	40	180	32	30	8.3	1.1	Z
	CT01–45° –D32–W32–T3	3	45	32	49.3	40	180	32	30	8.3	1.1	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
01	SPMT120408	TL60 M5×13	T20

倒角铣刀 Chamfer Milling Tools

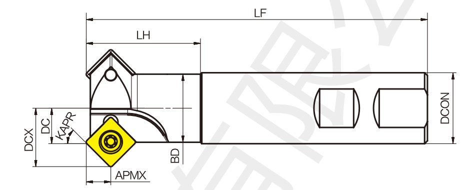


	型号 Type	刃数 Edge	KAPR	DC	DCX	LH	LF	DCON	BD	APMX	重量 Weight	接口形式 Inter Face
	CT01-60° -D12-P20-T1	1	30	12	23.3	40	100	20	14	9.5	0.2	Z
	CT01-60° -D12-W20-T1	1	30	12	23.3	40	100	20	14	9.5	0.2	W
	CT01-60° -D25-P25-T2	2	30	25	36.3	40	120	25	20	9.5	0.8	Z
	CT01-60° -D25-W25-T2	2	30	25	36.3	40	120	25	20	9.5	0.6	W
	CT01-60° -D32-P32-T2	2	30	32	43.3	40	180	32	26	9.5	1.1	Z
	CT01-60° -D32-W32-T2	2	30	32	43.3	40	180	32	26	9.5	1.1	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
01	SPMT120408	TL60 M5×13	T20

倒角铣刀 Chamfer Milling Tools

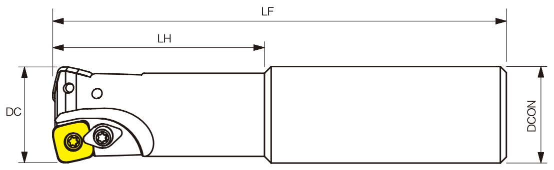


	型号 Type	刃数 Edge	KAPR	DC	DCX	LH	LF	DCON	BD	APMX	重量 Weight	接口形式 Inter Face
	CT01-30° -D12-P20-T1	1	60	12	32	40	100	20	19	5	0.2	Z
	CT01-30° -D12-W20-T1	1	60	12	32	40	100	20	19	5	0.2	W
	CT01-30° -D25-P25-T2	2	60	25	45.4	40	120	25	24	5	0.8	Z
	CT01-30° -D25-W25-T2	2	60	25	45.4	40	120	25	24	5	0.6	W
	CT01-30° -D32-P32-T3	3	60	32	52	50	180	32	30	5	1.1	Z
	CT01-30° -D32-W32-T3	3	60	32	52	50	180	32	30	5	1.1	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	扳手 Wrench
01	SPMT120408	TL60 M5×13	T20

大进给刀具 High Feed Milling

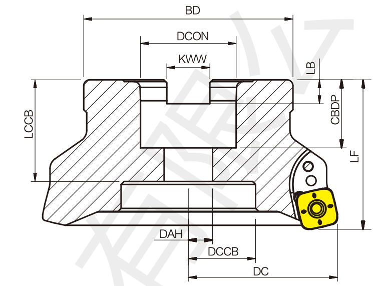


型号 Type		刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
	HM14-D25-P25-L140-T2	2	25	60	140	25		0.5	P
	HM14-D32-P32-L150-T3	3	32	70	150	32		0.8	P
	HM14-D35-P32-L150-T3	3	35	50	150	32		0.8	P
	HM15-D32-P32-L150-T2	2	32	70	150	32		0.8	P
	HM15-D40-P32-L150-T3	3	40	50	150	32		1.3	P

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench
14	SDMT09T3-OPM	TL60 M3.5×8	L60 M4×10	WD204	T10/T15
15	SDMT1204-OPM	TL60 M4×10			T15

大进给刀具 High Feed Milling

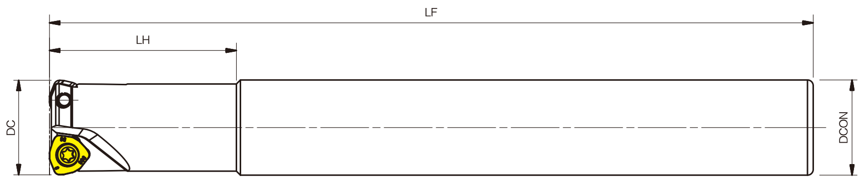


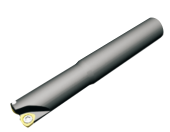
型号 Type		刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
	HM14-D50-A22-L40-T4	4	50	40	22	20		11		40	10.4	6.3		0.3	A
	HM14-D63-A22-L50-T6	6	63	50	22	20		11		50	10.4	6.3		0.5	A
	HM14-D63-A27-L50-T6	6	63	50	27	22		13		50	12.4	7		0.6	A
	HM15-D63-A22-L50-T5	5	63	50	22	20		11		50	10.4	6.3		0.5	A
	HM15-D63-A27-L50-T5	5	63	50	27	22		13		50	12.4	7		0.6	A
	HM15-D80-A27-L50-T5	5	80	50	27	22		13		60	12.4	7		0.9	A
	HM15-D100-B32-L50-T6	6	100	50	32		28		45	70	14.4	8		1.8	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench
14	SDMT09T3-OPM	TL60 M3.5×8	L60 M4×10	WD204	T10/T15
15	SDMT1204-OPM	TL60 M4×10			T15

大进给刀具 High Feed Milling



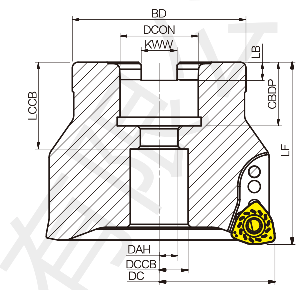


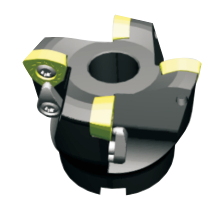
型号 Type	刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
HM10-D20-P20-L130-T2	2	20	50	130	20		0.2	P
HM10-D20-P20-L180-T2	2	20	100	180	20		0.3	P
HM10-D20-P20-L250-T2	2	20	130	250	20		0.8	P
HM11-D25-P25-L140-T2	2	25	60	140	25		0.4	P
HM11-D25-P25-L200-T2	2	25	120	200	25		0.6	P
HM11-D25-P25-L300-T2	2	25	180	300	25		0.9	P
HM11-D32-P32-L150-T3	3	32	70	150	32		0.8	P
HM11-D32-P32-L200-T3	3	32	120	200	32		0.9	P
HM11-D32-P32-L300-T3	3	32	180	300	32		1.6	P
HM12-D40-P32-L150-T3	3	40	50	150	32		0.9	P
HM12-D40-P32-L200-T3	3	40	50	200	32		1.5	P
HM12-D40-P32-L300-T3	3	40	50	300	32		1.8	P
HM12-D40-P32-L150-T2	2	40	50	150	32		0.9	P
HM12-D40-P32-L200-T2	2	40	50	200	32		1.5	P
HM12-D40-P32-L300-T2	2	40	50	300	32		1.9	P
HM13-D50-P32-L150-T2	2	50	50	150	32		1.9	P
HM13-D50-P32-L200-T2	2	50	50	200	32		2.5	P

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench
10	WPGT050315ZSR	TL60 M3.5×8			T10
11	WPGT060415ZSR	TL60M4×10			T15
12	WPGT080615ZSR	TL60 M4×10	L60 M5×12	WD208	T20
13	WPGT090725ZSR				

大进给刀具 High Feed Milling



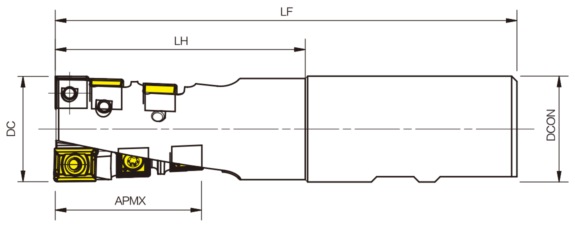


型号 Type	刃数 Edge	DC	LF	DCON	CBDP	LCCB	DAH	DCCB	BD	KWW	L8	APMX	重量 Weight	接口形式 Inter Face
HM11-D50-A40-T4	4	50	50	22	20		11		40	10.4	6.3		0.4	A
HM12-D50-A40-T3	3	50	50	22	20		11		40	10.4	6.3		0.4	A
HM12-D63-A50-T4	4	63	50	22	20		11		50	10.4	6.3		0.7	A
HM12-D63-A50-T4	4	63	50	27	22		13		50	12.4	7		0.7	A
HM12-D80-A60-T5	5	80	50	27	22		13		60	12.4	7		1.5	A
HM12-D100-B70-T6	6	100	63	32		28		45	70	14.4	8		2.2	B
HM12-D125-B80-T7	7	125	63	40		35		56	80	16.4	9		3.5	B
HM12-D160-B100-T8	8	160	63	40		35		56	100	16.4	9		5.9	B
HM13-D63-A50-T3	3	63	50	22	20		11		50	10.4	6.3		0.7	A
HM13-D80-A60-T4	4	80	63	27	22		13		60	12.4	7		1.4	A
HM13-D100-B70-T5	5	100	63	32		28		45	70	14.4	8		2.1	B
HM13-D125-B80-T6	6	125	63	40		35		56	80	16.4	9		3.7	B
HM13-D160-B100-T7	7	160	63	40		35		56	100	16.4	9		6.3	B

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	刀片螺钉 Insert Screw	压板螺丝 Screw Clamp	压板 Pressing Plate	扳手 Wrench
11	WPGT060415ZSR	TL60 M4×10			T15T
12	WPGT080615ZSR	TL60 M5×12	TL60 M5×12	WD208	T20T
13	WPGT090725ZSR				

螺旋立铣刀 Indexable Helical Milling Tools

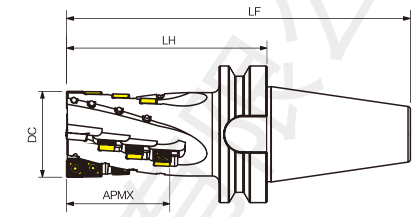


型号 Type		刃数 Edge	DC	LH	LF	DCON	APMX	重量 Weight	接口形式 Inter Face
	EM10-D40-W40-T2	2	40	95	175	40	55	1.2	W
	EM10-D50-W40-T4	4	50	95	175	40	55	1.5	W

刀具附件Accessories

编号 Code	适用刀片 Applicable insert	侧切刀片 Side Cutting Insert	刀片螺钉 Insert Screw	扳手 Wrench
10	APKT150412	SPMT120408	TL60 M5×12	T20

螺旋立铣刀 Indexable Helical Milling Tools

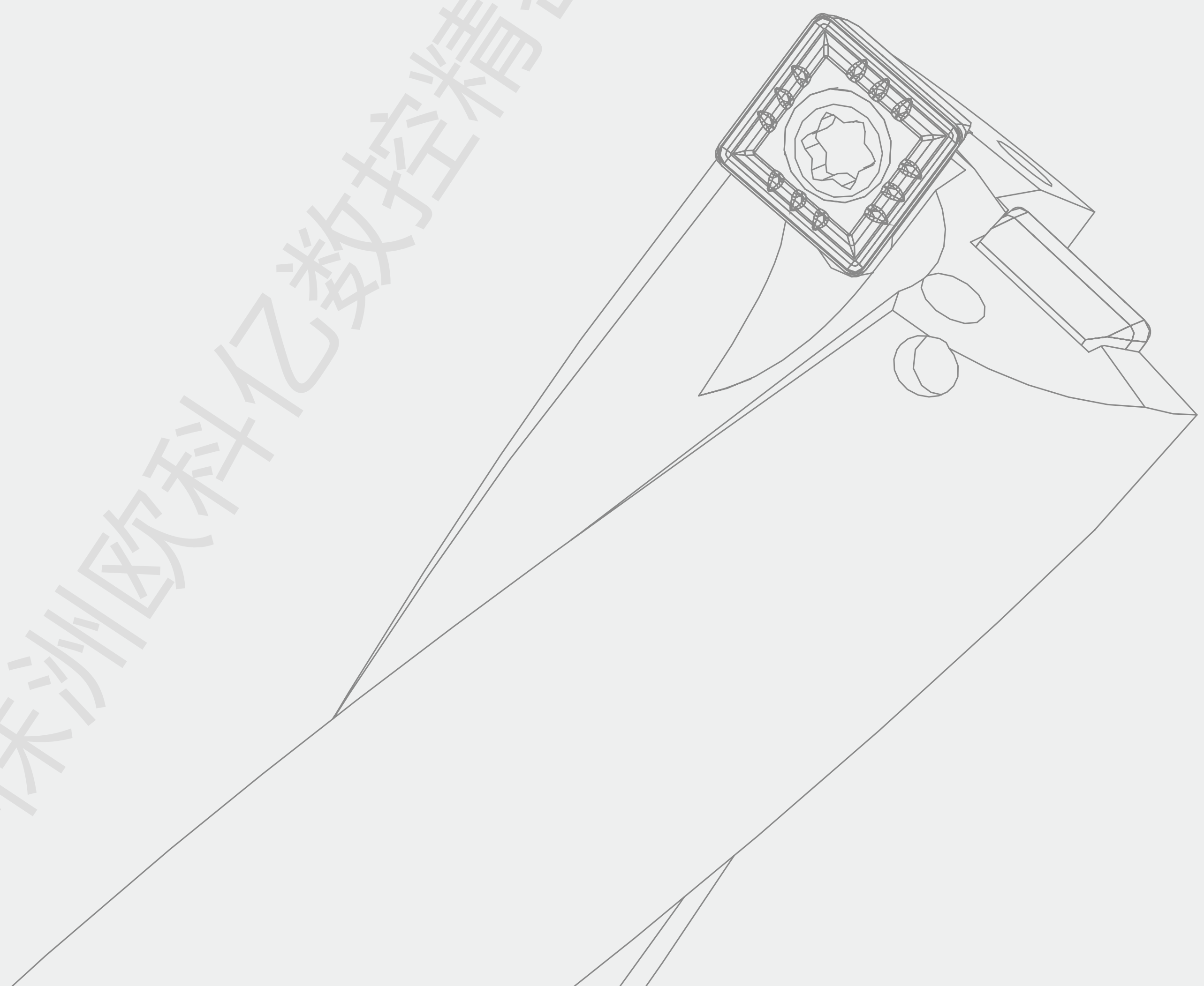


型号 Type		刃数 Edge	DC	LH	LF	APMX	重量 Weight	接口形式 Inter Face
	EM10-D50-JT50-AP084-T4	4	50	145	246.75	84	4.8	JT50
	EM10-D63-JT50-AP074-T4	4	63	135	236.75	74	5.5	JT50
	EM10-D63-JT50-AP104-T4	4	63	165	266.75	104	6.1	JT50
	EM10-D63-JT50-AP134-T4	4	63	195	296.75	134	6.3	JT50
	EM10-D80-JT50-AP104-T4	4	80	165	266.75	104	6.9	JT50
	EM10-D80-JT50-AP144-T4	4	80	205	306.75	144	7.2	JT50
	EM10-D50-BT50-AP084-T4	4	50	145	246.75	84	4.8	BT50
	EM10-D63-BT50-AP074-T4	4	63	135	236.75	74	5.5	BT50
	EM10-D63-BT50-AP104-T4	4	63	165	266.75	104	6.1	BT50
	EM10-D63-BT50-AP134-T4	4	63	195	296.75	134	6.3	BT50
	EM10-D80-JT50-AP104-T4	4	80	165	266.75	104	6.9	BT50
	EM10-D80-JT50-AP144-T4	4	80	205	306.75	144	7.2	BT50

刀具附件Accessories

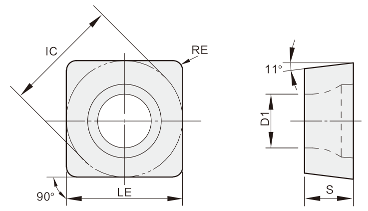
编号 Code	适用刀片 Applicable insert	侧切刀片 Side Cutting Insert	刀片螺钉 Insert Screw	扳手 Wrench
10	APKT150412	SPMT120408	TL60 M5×12	T20

C 钻削刀具
DRILLING TOOLS



株洲欧科亿数控精密刀具股份有限公司

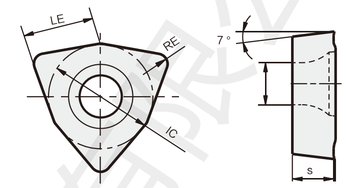
可转位浅孔钻刀片 Indexable Shallow Drilling Insert List



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号 Grade	
		LE	IC	S	D1	RE	OP1215	OP1315
	SPGT050204-OPM	5	5	2.38	2.2	0.4	▲	●
	SPGT060204-OPM	6	6	2.38	2.6	0.4	▲	●
	SPGT07T308-OPM	7.94	7.94	3.97	2.8	0.8	▲	●
	SPGT090408-OPM	9.8	9.8	4.3	4.2	0.8	▲	●
	SPGT110408-OPM	11.5	11.5	4.76	4.4	0.8	▲	●
	SPGT140512-OPM	14.3	14.3	5.2	5.75	1.2	▲	●

A
B
C/a
D

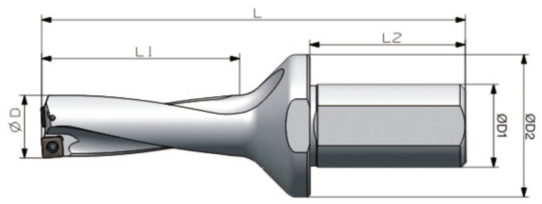
可转位浅孔钻刀片 Indexable Shallow Drilling Insert List



刀片外形 Insert Shape	型号 Type	基本尺寸 Dimensions(mm)					涂层牌号	
		LE	IC	S	D1	RE	OP1215	OP1315
	WCMX030208-ZK	3.8	5.56	2.38	2.8	0.8	▲	●
	WCMX040208-ZK	4.3	6.35	2.38	3.1	0.8	▲	●
	WCMX050308-ZK	5.4	7.94	3.18	3.2	0.8	▲	●
	WCMX06T308-ZK	6.5	9.525	3.97	3.7	0.8	▲	●
	WCMX080412-ZK	8.7	12.7	4.76	4.3	1.2	▲	●

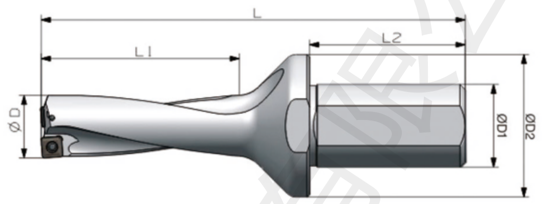
▲主推牌号 ●可选牌号 ▲Featured grade ●Optional grade

可转位浅孔钻 Indexable Drilling Inserts Tool Holder



型号 Type		基本尺寸 Dimensions(mm)					
		D	ΦD₁	ΦD₂	L₁	L₂	L
	UDR01-D13-W20-2X	13	20	25	32	50	96
	UDR01-D14-W20-2X	14	20	25	34	50	98
	UDR01-D15-W20-2X	15	20	25	36	50	100
	UDR01-D16-W20-2X	16	20	25	38	50	102
	UDR01-D17-W25-2X	17	25	32	40	56	118
	UDR01-D18-W25-2X	18	25	32	42	56	120
	UDR01-D19-W25-2X	19	25	32	44	56	121
	UDR01-D20-W25-2X	20	25	32	46	56	123
	UDR01-D21-W25-2X	21	25	32	48	56	125
	UDR01-D22-W25-2X	22	25	32	50	56	128
	UDR01-D23-W32-2X	23	32	40	52	60	130
	UDR01-D24-W32-2X	24	32	40	54	60	132
	UDR01-D25-W32-2X	25	32	40	56	60	134
	UDR01-D26-W32-2X	26	32	40	58	60	136
	UDR01-D27-W32-2X	27	32	40	60	60	138
	UDR01-D28-W32-2X	28	32	40	62	60	147
	UDR01-D29-W32-2X	29	32	45	64	60	149
	UDR01-D30-W32-2X	30	32	45	66	60	151
	UDR01-D31-W32-2X	31	32	45	68	60	153
	UDR01-D32-W32-2X	32	32	45	70	60	155
	UDR01-D33-W32-2X	33	32	45	72	60	157
	UDR01-D34-W40-2X	34	40	45	74	60	174
	UDR01-D35-W40-2X	35	40	45	76	60	176
	UDR01-D36-W40-2X	36	40	45	78	60	178
	UDR01-D37-W40-2X	37	40	55	80	70	180
	UDR01-D38-W40-2X	38	40	55	82	70	182
	UDR01-D39-W40-2X	39	40	55	84	70	184
	UDR01-D40-W40-2X	40	40	55	86	70	186
	UDR01-D41-W40-2X	41	40	55	88	70	188

可转位浅孔钻 Indexable Drilling Inserts Tool Holder

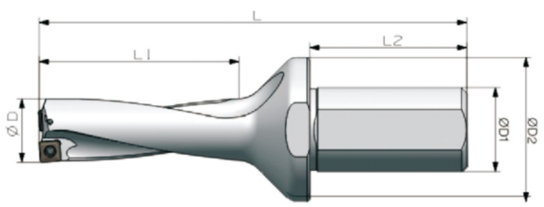


型号 Type		基本尺寸 Dimensions(mm)					
		D	ΦD₁	ΦD₂	L₁	L₂	L
	UDR01-D42-W40-2X	42	40	55	90	70	200
	UDR01-D43-W40-2X	43	40	55	92	70	202
	UDR01-D44-W40-2X	44	40	60	94	70	204
	UDR01-D45-W40-2X	45	40	60	96	70	206
	UDR01-D46-W40-2X	46	40	60	98	70	208
	UDR01-D47-W40-2X	47	40	60	100	70	210
	UDR01-D48-W40-2X	48	40	60	102	70	212
	UDR01-D49-W40-2X	49	40	60	104	70	214
	UDR01-D50-W40-2X	50	40	60	106	70	216

刀具附件 Accessories

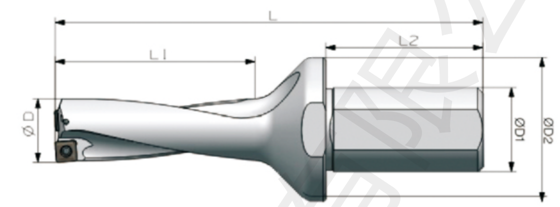
适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
SPGT050204-OPM	13-16	L60 M2×4.3	T06
SPGT060204-OPM	17-21	L60 M2.2×5.5	T07
SPGT07T308-OPM	22-27	L60 M2.5×6.5	T08
SPGT090408-OPM	28-33	L60 M3.5×8	T15
SPGT110408-OPM	34-41	L60 M4×10	T15
SPGT140512-OPM	42-50	L60 M5×13	T20

可转位浅孔钻 Indexable Drilling Inserts Tool Holder



型号 Type		基本尺寸 Dimensions(mm)					
		D	ΦD1	ΦD2	L1	L2	L
	UDR01-D13-W20-3X	13	20	25	44	50	111
	UDR01-D14-W20-3X	14	20	25	47	50	114
	UDR01-D15-W20-3X	15	20	25	50	50	127
	UDR01-D16-W20-3X	16	20	25	53	50	120
	UDR01-D17-W25-3X	17	25	32	56	56	135
	UDR01-D18-W25-3X	18	25	32	59	56	138
	UDR01-D19-W25-3X	19	25	32	62	56	140
	UDR01-D20-W25-3X	20	25	32	65	56	143
	UDR01-D21-W25-3X	21	25	32	68	56	146
	UDR01-D22-W25-3X	22	25	32	71	56	149
	UDR01-D23-W32-3X	23	32	40	74	60	153
	UDR01-D24-W32-3X	24	32	40	77	60	156
	UDR01-D25-W32-3X	25	32	40	80	60	159
	UDR01-D26-W32-3X	26	32	40	83	60	162
	UDR01-D27-W32-3X	27	32	40	86	60	165
	UDR01-D28-W32-3X	28	32	40	89	60	168
	UDR01-D29-W32-3X	29	32	45	92	60	178
	UDR01-D30-W32-3X	30	32	45	95	60	181
	UDR01-D31-W32-3X	31	32	45	98	60	184
	UDR01-D32-W32-3X	32	32	45	101	60	187
	UDR01-D33-W32-3X	33	32	45	104	60	190
	UDR01-D34-W40-3X	34	40	45	107	60	193
	UDR01-D35-W40-3X	35	40	45	110	60	196
	UDR01-D36-W40-3X	36	40	45	113	60	199
	UDR01-D37-W40-3X	37	40	55	117	70	217
	UDR01-D38-W40-3X	38	40	55	119	70	220
	UDR01-D39-W40-3X	39	40	55	122	70	223
	UDR01-D40-W40-3X	40	40	55	125	70	231
	UDR01-D41-W40-3X	41	40	55	128	70	229

可转位浅孔钻 Indexable Drilling Inserts Tool Holder

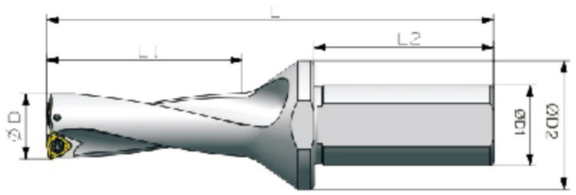


型号 Type		基本尺寸 Dimensions(mm)					
		D	ΦD1	ΦD2	L1	L2	L
	UDR01-D42-W40-3X	42	40	55	131	70	232
	UDR01-D43-W40-3X	43	40	55	134	70	240
	UDR01-D44-W40-3X	44	40	60	138	70	248
	UDR01-D45-W40-3X	45	40	60	141	70	251
	UDR01-D46-W40-3X	46	40	60	144	70	254
	UDR01-D47-W40-3X	47	40	60	147	70	257
	UDR01-D48-W40-3X	48	40	60	149	70	260
	UDR01-D49-W40-3X	49	40	60	152	70	263
	UDR01-D50-W40-3X	50	40	60	155	70	266

刀具附件 Accessories

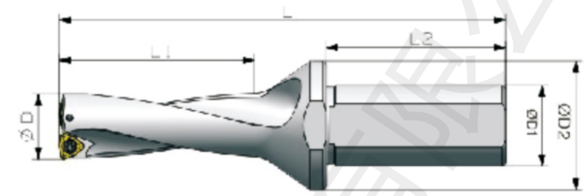
适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
SPGT050204-OPM	13-16	L60 M2×4.3	T06
SPGT060204-OPM	17-21	L60 M2.2×5.5	T07
SPGT07T308-OPM	22-27	L60 M2.5×6.5	T08
SPGT090408-OPM	28-33	L60 M3.5×8	T15
SPGT110408-OPM	34-41	L60 M4×10	T15
SPGT140512-OPM	42-50	L60 M5×13	T20

可转位浅孔钻 Indexable Drilling Inserts Tool Holder



型号 Type	基本尺寸 Dimensions(mm)					
	ΦD	ΦD₁	ΦD₂	L₁	L₂	L
UDR02-D16-W25-3X	16	25	32	52	56	129
UDR02-D17-W25-3X	17	25	32	55	56	133
UDR02-D18-W25-3X	18	25	32	58	56	137
UDR02-D19-W25-3X	19	25	32	61	56	140
UDR02-D20-W25-3X	20	25	32	64	56	143
UDR02-D21-W25-3X	21	25	45	67	56	153
UDR02-D22-W25-3X	22	25	45	70	56	156
UDR02-D23-W25-3X	23	25	45	73	56	159
UDR02-D24-W25-3X	24	25	45	76	56	162
UDR02-D25-W25-3X	25	25	45	79	56	165
UDR02-D26-W32-3X	26	32	55	83	60	176
UDR02-D27-W32-3X	27	32	55	86	60	180
UDR02-D28-W32-3X	28	32	55	89	60	184
UDR02-D29-W32-3X	29	32	55	92	60	188
UDR02-D30-W32-3X	30	32	55	95	60	192
UDR02-D31-W40-3X	31	40	60	98	70	203
UDR02-D32-W40-3X	32	40	60	101	70	206
UDR02-D33-W40-3X	33	40	60	104	70	209
UDR02-D34-W40-3X	34	40	60	107	70	212
UDR02-D35-W40-3X	35	40	60	110	70	215
UDR02-D36-W40-3X	36	40	60	113	70	218
UDR02-D37-W40-3X	37	40	60	116	70	221
UDR02-D38-W40-3X	38	40	60	119	70	225
UDR02-D39-W40-3X	39	40	60	122	70	228
UDR02-D40-W40-3X	40	40	60	125	70	231
UDR02-D41-W40-3X	41	40	60	128	70	234
UDR02-D42-W40-3X	42	40	60	131	70	239
UDR02-D43-W40-3X	43	40	60	134	70	242
UDR02-D44-W40-3X	44	40	60	137	70	245
UDR02-D45-W40-3X	45	40	60	140	70	248
UDR02-D46-W40-3X	46	40	60	143	70	251
UDR02-D47-W40-3X	47	40	60	146	70	253

可转位浅孔钻 Indexable Drilling Inserts Tool Holder

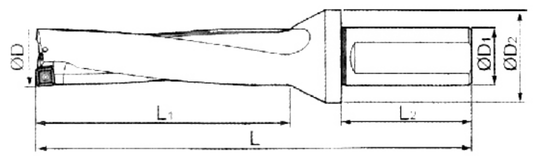


型号 Type	基本尺寸 Dimensions(mm)					
	D	ΦD₁	ΦD₂	L₁	L₂	L
UDR02-D48-W40-3X	48	40	70	149	70	255
UDR02-D49-W40-3X	49	40	70	152	70	257
UDR02-D50-W40-3X	50	40	70	155	70	259
UDR02-D51-W40-3X	51	40	70	158	70	261
UDR02-D52-W40-3X	52	40	70	161	70	263
UDR02-D53-W40-3X	53	40	70	164	70	265
UDR02-D54-W40-3X	54	40	70	167	70	267
UDR02-D55-W40-3X	55	40	70	170	70	269
UDR02-D56-W40-3X	56	40	70	173	70	271
UDR02-D57-W40-3X	57	40	70	176	70	273
UDR02-D58-W40-3X	58	40	70	179	70	275

刀具附件Accessories

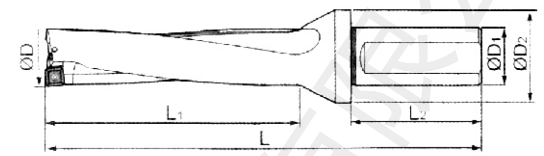
适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
WCMX030208-ZK	16-20	L60 M2.5×6.5	T08
WCMX040208-ZK	21-25	L60 M2.5×6.5	T08
WCMX050308-ZK	26-30	L60 M3×8	T10
WCMX06T308-ZK	31-41	L60 M3.5×8	T15
WCMX080412-ZK	42-58	L60 M4×10	T15

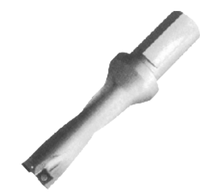
可转位浅孔钻 Indexable Drilling Inserts Tool Holder



型号 Type		基本尺寸 Dimensions(mm)					
		ΦD	ΦD_1	ΦD_2	L_1	L_2	L
	UDR01-D13-W20-4X	13	20	25	57	50	124
	UDR01-D14-W20-4X	14	20	25	61	50	128
	UDR01-D15-W20-4X	15	20	25	65	50	132
	UDR01-D16-W20-4X	16	20	25	69	50	136
	UDR01-D17-W25-4X	17	25	32	73	56	152
	UDR01-D18-W25-4X	18	25	32	77	56	156
	UDR01-D19-W25-4X	19	25	32	81	56	159
	UDR01-D20-W25-4X	20	25	32	85	56	163
	UDR01-D21-W25-4X	21	25	32	89	56	167
	UDR01-D22-W25-4X	22	25	25	93	56	172
	UDR01-D23-W32-4X	23	32	32	97	56	176
	UDR01-D24-W32-4X	24	32	32	101	56	180
	UDR01-D25-W32-4X	25	32	32	105	56	184
	UDR01-D26-W32-4X	26	32	32	109	56	188
	UDR01-D27-W32-4X	27	32	37	113	56	192
	UDR01-D28-W32-4X	28	32	37	118	60	203
	UDR01-D29-W32-4X	29	32	37	122	60	207
	UDR01-D30-W32-4X	30	32	37	125	60	211
	UDR01-D31-W32-4X	31	32	37	129	60	215
	UDR01-D32-W32-4X	32	32	37	133	60	219
	UDR01-D33-W32-4X	33	32	37	137	70	223
	UDR01-D34-W40-4X	34	40	47	142	70	242
	UDR01-D35-W40-4X	35	40	47	146	70	246
	UDR01-D36-W40-4X	36	40	47	150	70	250
	UDR01-D37-W40-4X	37	40	47	154	70	254
	UDR01-D38-W40-4X	38	40	47	158	70	258
	UDR01-D39-W40-4X	39	40	47	162	70	262
	UDR01-D40-W40-4X	40	40	47	166	70	266
	UDR01-D41-W40-4X	41	40	47	170	70	270

可转位浅孔钻 Indexable Drilling Inserts Tool Holder





型号 Type		基本尺寸 Dimensions(mm)					
		D	ΦD_1	ΦD_2	L_1	L_2	L
	UDR01-D42-W40-4X	42	40	52	174	70	284
	UDR01-D43-W40-4X	43	40	52	178	70	288
	UDR01-D44-W40-4X	44	40	52	182	70	292
	UDR01-D45-W40-4X	45	40	52	186	70	296
	UDR01-D46-W40-4X	46	40	52	190	70	300
	UDR01-D47-W40-4X	47	40	52	194	70	304
	UDR01-D48-W40-4X	48	40	52	198	70	307
	UDR01-D49-W40-4X	49	40	52	202	70	312
	UDR01-D50-W40-4X	50	40	52	206	70	316

刀具附件Accessories

适用刀片 Insert	直径 Diameter	螺钉 Screw	扳手 Wrench
SPGT050204-OPM	13-16	L60 M2×4.3	T06
SPGT060204-OPM	17-21	L60 M2.2×5.5	T07
SPGT07T308-OPM	22-27	L60 M2.5×6.5	T08
SPGT090408-OPM	28-33	L60 M3.5×8	T15
SPGT110408-OPM	34-41	L60 M4×10	T15
SPGT140512-OPM	42-50	L60 M5×13	T20

D 技术信息

TECHNICAL INFORMATION

A
B
C
D/1

D-1 技术信息
TECHNICAL INFORMATION

车削刀具 Turning Tools

普通车削刀片牌号与槽型推荐组合
Recommend collocation of general turning grades and chip breakers

	P类加工 ISO P Steel	M类加工 ISO M Stainless Steel	K类加工 ISO K Cast Iron
精加工	OPF — OC2015 — OC2115 OTF — OC2015 — OC2115	OMF — OP1205 — OP1215 OTF — OP1205 MSF — OP1205 — OP1215	
半精加工	OPM — OC2025 — OC2125 GM — OC2115 — OC2125 OTM — OC2025 — OC2125	MF — OP1205 — OP1215 OMM — OC4315 — OP1215 OTM — OP1215 GM — OP1215	通槽 General chip breaker — OC3105 — OC3115D OC3105 — OC3215
粗加工	OPR — OC2025 — OC2125 OTR — Oc2025 — OC2125		无槽 Flat (None chip breaker) — OC3215 — OC3115D

A
B
C
D/1

车削刀片推荐切削用量

Recommended Cutting Parameters on Different Grades

ISO	P类 IOS P		
加工材料 Materials	碳素钢 Carbon steel	合金钢 Alloy steel	调质钢 Hardened And Tempered Steel
硬度 Hardness	HB120-180	HB180-240	HB240-350

ISO	M类 IOS M	
加工材料 Materials	奥氏体 Austenite	马氏体 Martensite
硬度 Hardness	HB120-200	HB330

ISO	K类 IOS K	
加工材料 Materials	灰口铸铁 Grey Cast Iron	球墨铸铁 Nodular Cast Iron
硬度 Hardness	HB150-220	HB140-220

ISO	N类 IOS N
加工材料 Materials	铝合金 Aluminium Alloy
硬度 Hardness	HB60

车削刀片推荐切削用量

Recommended Cutting Parameters on Different Grades

牌号 Grade	OC2015	OC2025	OC2115	OC2125
速度 Vc(m/min)	450-200	430-180	480-260	460-240
	320-140	300-130	340-150	330-150
	200-80	190-70	220-80	210-70

牌号 Grade	OC4015	OC4025	OC4225	OP1205
速度 Vc(m/min)	200-100	190-90	210-110	220-100
	200-140	210-130	220-140	260-170

牌号 Grade	OC3015	OC3115D	OC3215	
速度 Vc(m/min)	280-160	400-190	380-200	
	280-140	300-150	220-110	

牌号 Grade	OK434			
速度 Vc(m/min)	900-400			

车削加工常见问题及解决方案

Common Problems and Solutions for Turning

常见问题	原因	解决办法	刀具材料		切削条件				刀具形状							机床装夹		
			硬度更高的材料	韧性更好的材料	切削速度	进给	切深	切削液	改变刀片槽型	前角	刀尖圆弧半径	主偏角	切削刃强度	提高刀片精度	提高刀柄刚性	工件刀柄装夹	刀柄悬伸	动力、机床间隙
刀尖磨损过大	加工中精度超标	后刀面磨损增大	◎								↑							
		切削条件不适合			↓	↑												
表面精度恶化	表面质量差	刀具磨损增大、刀刃不够锋利	◎		↓			◎		↑	↑		↓	◎				
		切削刃缺损		◎		↓	↓		◎		↑		↑			◎	◎	◎
		切削刃几何形状不合适							◎		↑		↓	◎				
		切削条件不适合			↑	↓	↓	◎										
		振动、发颤		◎	↑↓	↓	↓	◎	◎	↑	↓	↑	↓		◎	◎	◎	◎
		积屑瘤			↑	↑		◎	◎	↑			↓	◎				
发热	切削热的影响	切削条件不适合			↓	↓	↓											
		切削刃几何形状不适合	◎						◎	↑			↓					
尺寸精度差	加工中尺寸波动	刀片精度不适合												◎				
		工件、刀具位置偏移							◎	↑	↓	↑			◎	◎	◎	◎
刀具切削刃损伤	后刀面前刀面磨损增大	后刀面磨损	◎		↓				◎	↑	↑		↓					
		前刀面磨损	◎		↓	↓	↓		◎	↑		↓						
	微崩	振动、冲击		◎		↓	↓		◎			↓	↑		◎	◎	◎	◎
	积屑瘤	工件硬度与刀具切削条件不适合			↑	↑		◎	◎	↑			↓	◎				
	热龟裂	工件材料的硬度与刀具材料和切削条件不适应			↓	↓	↓	◎	◎	↑			↓					
	切削刃刀尖部分变形	在断续切削大进给时发生	◎		↑	↓	↓	◎	◎	↑	↑	↓	↓					
	刀具寿命	材料、切削条件不适合		◎		↓	↓		◎		↑	↓	↑		◎	◎	◎	◎
切屑控制	长切屑缠绕	切削条件不适合			↓	↑	↑	◎										
		刀刃几何形状不合适							◎		↓	↑						
	切削太短、导致飞溅	切削条件不适合				↓	↓	◎										
		刀刃几何形状不合适							◎		↑	↓						
毛刺、塌边	钢、铝产生毛刺	切削条件不适合			↑	↓		◎										
		刀具磨损、几何形状不合适	◎						◎	↑	↓	↑	↓					
	铸铁，塌边	切削条件不适合			↓	↑		◎										
		刀具磨损、几何形状不合适	◎						◎	◎	↓	↓	↓					
	软钢、毛边	切削条件不适合				↓	↓											
		刀具磨损、几何形状不合适	◎						◎	↑	↑		↑		◎	◎	◎	◎

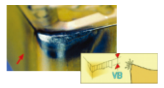
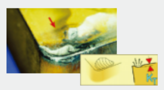
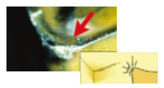
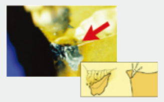
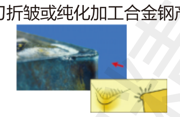
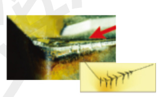
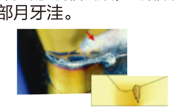
车削加工常见问题及解决方案

Common Problems and Solutions for Turning

FAQ	Reason	Solutions	Insert Grade		Cutting conditions				Tool Shape							Setting/ Machine		
			Harder Grade	Tougher Grade	Vc	Fn	Ap	Coolant	Chip Breaker Review	Rake Angle	Corner Radius	Setting Angle	Edge Strength	Change to Higher Tolerance	Toolholder Rigidity	Workpiece/Tool Installation	Overhang Length	Power,Rigidity
Too Much Wear On Nose	Accuracy Out Tolerance	Wear Increase at Flank Wear	◎								↑							
		Unsuitable Cutting Conditions			↓	↑												
Surface accuracy deterioration	Poor Roughness Of Surface	Tool wearness Increasing, Cutting Edge not Sharp	◎		↓			◎		↑	↑		↓	◎				
		Cutting Edge Chipping		◎		↓	↓		◎		↑		↑			◎	◎	◎
		Unsuitable Geometry							◎		↑		↓	◎				
		Unsuitable Cutting Conditions			↑	↓	↓	◎										
		Vibration,Chattering		◎	↑↓	↓	↓	◎	◎	↑	↓	↑	↓		◎	◎	◎	◎
		Built-up Edge			↑	↑		◎	◎	↑			↓	◎				
Heat	Cutting Heat Factors	Unsuitable Cutting Conditions			↓	↓	↓											
		Unsuitable Geometry	◎						◎	↑			↓					
Deterioration of Accuracy	Variation of Dimension	Unsuitable Insert Accuracy												◎				
		Position Offset of Workpiece and Tool							◎	↑	↓	↑			◎	◎	◎	◎
Edge Damage	Wear Increase at Relief Face	Flank Wear	◎		↓				◎	↑	↑		↓					
		Rake Face Wear	◎		↓	↓	↓		◎	↑		↓						
	Chipping	Vibration,Shock		◎		↓	↓		◎			↓	↑		◎	◎	◎	◎
	Built-up Egde	Unsuitable Workpiece Hardness and Cutting Conditions			↑	↑		◎	◎	↑			↓	◎				
	Comp Cracks	Unsuited Tool's Material and Cutting Condition to Workpiece Material			↓	↓	↓	◎	◎	↑			↓					
	Edge Nose Deformation	Interrupted Cutting	◎		↑	↓	↓	◎	◎	↑	↑	↓	↓					
	Tool Life	Unsuited Material and Cutting Condition		◎		↓	↓		◎		↑	↓	↑		◎	◎	◎	◎
Chip Control	Long, Tangling Chips	Unsuitable Cutting Conditions			↓	↑	↑											
		Unsuitable Material and Cutting Conditions							◎		↓	↑						
	Chips Scattering	Unsuitable Cutting Conditions				↓	↓	◎										
		Unsuitable Geometry on cutting edge							◎		↑	↓						
Burrs Turned-down Edge	Steel, Aluminum-Burr	Unsuitable Cutting Conditions			↑	↓		◎										
		Insert Wear, Unsuitable Geometry	◎						◎	↑	↓	↑	↓					
	Iron Cast, Turned-down Edge	Unsuitable Cutting Conditions			↓	↑		◎										
		Insert Wear, Unsuitable Geometry	◎						◎	◎	↓	↓	↓					
	Soft Steel, Turned-down Edge	Unsuitable Cutting Conditions				↓	↓											
		Insert Wear, Unsuitable Geometry	◎						◎	↑	↑		↑		◎	◎	◎	◎

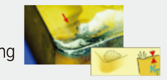
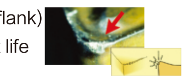
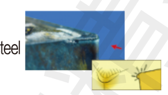
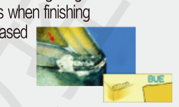
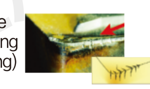
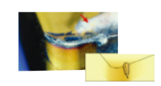
刀具磨损及解决方案

Tool Wear and Solution

刀具破损形式	现象	原因	解决方案
后刀面磨损	切削阻力增加，后刀面逐渐形成沟槽磨损。表面质量变差或尺寸超差 	刀具材料过软 切削速度过高 后角过小 进给量太小	选用高耐磨性刀具材料 降低切削速度 增大后角 加大进给量
前刀面磨损（月牙洼磨损）	断屑控制不好，精加工表面恶化，高速加工碳钢的情况下出现。 	刀具材料过软 切削速度过高 进给量太大 槽型强度太小	选用高耐磨性刀具材料 降低切削速度 降低进给量 选用强度更大的刀片槽型
崩刃	突发性崩刃（前后刀面），刀具寿命不稳定。 	刀具材料过硬 进给量大 切削刃强度不足 刀杆、刀柄刚性不足	先用韧性好的刀具材料 降低进给量 加大刃口修磨量（倒棱改倒圆） 加大刀具刚性和主偏角
刀片破裂	切削阻力增加表面粗糙度恶化。 	刀具材料过硬 进给量大 切削刃强度不足 刀杆，刀柄刚性不足	选用韧性好的刀具材料 降低进给量 加大刃口修磨量（倒棱改倒圆） 改善工件及刀具刚性
塑性变形（刀刃塌下）	工件尺寸变化，刀尖磨损，刀刃折皱或纯化加工合金钢产生。 	刀具材料过软 切削速度过高 切削深度、进给量太大 切削刃温度过高	选用高耐磨性刀具材料 降低切削速度 减小切削深度进给量 选用导热系数高的刀具材料 （CVD和充分的切削液）
积屑瘤（粘结）	工件材料溶结到刀具切削刃精加工表面恶化，切削阻力增加，加工软性材料。 	切削速度低， 切削刃不锋利， 刀具材料不适合。	提高切削速度 增大前角 选用亲和力小的刀具材料 （涂层、金属陶瓷等）
热龟裂	由于热循环而崩损（多出现在铣削和断续切削） 	刀具材料过硬， 切削热引起的膨胀与收缩 （冷热循环）	干式切削或提供充足冷却液 选用韧性好更抗热冲击力的刀具材料
剥落	多出现在高硬度材料、有振动的切削 	切削刃上粘结　切屑排出不畅	增大前角使切削刃锋利 增大刀片容屑槽。
切深处沟槽磨损	切深处的局部失效，局部崩刃，局部月牙洼。 	加工硬化材料、氧化皮、高温合金等	选用高耐磨性的CVD涂层材质 采用锥形切削（变切深） 减少主偏角

刀具磨损及解决方案

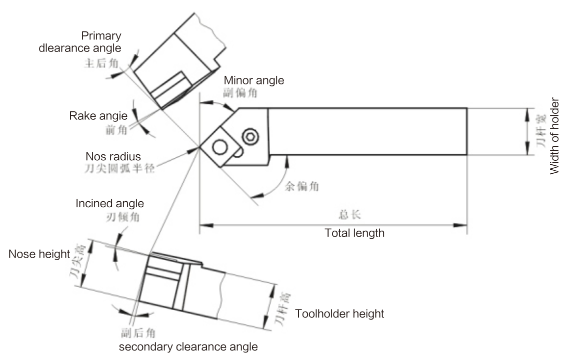
Tool Wear and Solution

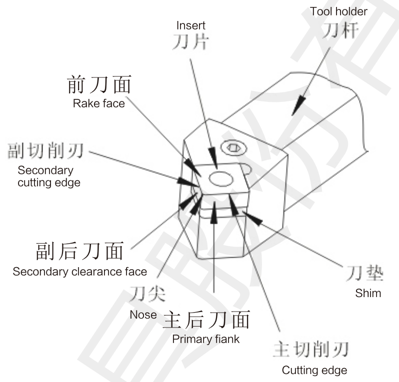
Tool wear types	Situation	Reason	Solutions
FLANK WEAR	Higher cutting resistance Notch wear on flank Poor roughness of surface or deterioration of accuracy. 	Soft grades Excessive cutting speed Small flank angle Low feed	Select a higher wear-resistant grade Reduce cutting speed Increase flank angle Increase feed
CRATER WEAR	Uncontrolled chip Poor surface quality when finishing High speed processing carbon steel 	Soft grades Excessive cutting speed Excessive feed The strength of chip breaker Insufficiet	Change to a higher wear-resistant grade Reduce cutting speed Reduce feed Select a higher strength chip breaker
CHIPPING	Sudden fracture of cutting edge (rake face and flank) Instability insert life 	Toughness insufficient Excessive feed rate Strength of cutting edge insufficient Instability of the tool	Select a tougher grade Decrease feed rate Increase honing of cutting edge (chamfering to rounding) Increase the stability and setting angle
INSERT FRACTURE	Cutting resistance increased Poor surface roughness 	Toughness insufficient Excessive feed rate Strength of cutting edge insufficient Instability of the tool	Select a tougher grade Decrease feed rate Increase honing of cutting edge (chamfering to rounding) Increase the stability and setting angle
PLASTIC DEFORMATION	Variation of dimension Nose wear,cutting edge drape or passivating. when processing alloy steel Poor surface roughness 	Soft grade Excessive cutting speed Excessive cutting depth and feed rate Overheat on cutting edge	Select a higher red hardness cutting material Decrease cutting speed Decrease cutting depth and feed rate Select a higher thermal conductivity cutting material(CVD+sufficient coolant)
BUILD-UP-EDGE	Workpiece dissolve with Cutting edge Poor surface roughness when finishing Cutting resistance increased Cutting soft materials 	Cutting speed too low Cutting edge obtuse Unsuitable tool material	Increase cutting speed Increase rake angle Select small sticking force
THEMAL CRACK	Crack by heat cycle (often happen in milling and interrupted cutting) 	Toughness of tool grade insufficient Swell and shrink by cutting heat(cold-thermocycling)	Cutting without coolant/Sufficient coolant Select a tougher and more thermal shock resistance grade
FLAKING	Often in instability cutting and cutting high-hardness materials 	Build-up edge Uncontrolled chip	Increase rake angle Increase chip breaker
NOTCH WEAR	Notch partial failure Partial chipping Partial cratering 	Processing hardened material, oxide-scale,superalloy	Select a higher wear-resistance CVD grade Adopt taper cutting (variable cutting depth) Decrease setting angle

车削刀具各部分作用

The Names of Each Part of Turning Tools

一、车刀各部分的名称 Names of turning holder parts





二、前角的影响 Effects of rake angle

前角增大使切削刃锋利，切屑流出阻力小，摩擦力小，切削变形小，因此切削力和切削功率小，切削温度低，刀具磨损小，加工表面质量高。但过大前角使刀具的刚性和强度降低，热量不易传散，刀具磨损和破损严重，刀具寿命低。在确定刀具前角时，应根据加工条件考虑选择。

Larger rake angle makes cutting edge sharper. reduces resistant forces of chip flow. diminishes friction and prevent deformation. leading to smaller, less abrasion and higher surface quality. However,too large rake angle would reduce the rigidity and strength of tool.Heat can’t be diffused easily,Serious breakage and abrasion on tool would occur,reducing too life.Please choose rake angle according to machining conditions.

选值 Value selection	具体情况 Situations
小前角 Small rake angle	1.加工脆性材料和硬材料时 When machining brittle and hard materials; 2.粗加工和断续切削时 When roughing and interrupted cutting
大前角 Big rake angle	1.加工塑性材料和软材料时 When machining Plastic or soft materials; 2.精加工时 When finishing;

A
B
C
D/1

车削刀具各部分作用

The Names of Each Part of Turning Tools

三、后角的影响 Effects of clearance angle

后角在加工中的主要作用是减小刀具后刀面与加工表面的摩擦。当前角固定时，后角的增大能增大刀刃的锋利程度，切削力减小，摩擦减小，故加工表面质量高；但是过大的后角使切削刃强度降低，散热条件差，磨损量大，因此刀具寿命降低。

后角选择原则是：在摩擦不严重的情况下，选择较小的后角。

The main function of clearance angle to reduce the friction between the clearance face of tool and the surface of workpiece. When the rake angle is fixed,larger clearance angle can increase and the achieve higher surface quality.However,if clearance angle is too large,the strength of cutting edge would decrease.Also,heat can’t be diffused easily and serious abrious would occur,reducing tool life.

The principle of choosing clearance angle:Choose small cleara–nce angle if friction is not serious

选值 Value selection	具体情况 Situations
小后角 Small clearance angle	1.粗加工时为提高刀尖强度 In order to increase nose strength when roughing 2.加工脆性材料和硬材料时 When machining brittle and hard materials
大后角 Large clearance angle	1.精加工时为了减少摩擦 In order to reduce friction when finishing 2.加工易产生硬化层的材料时 When machining materials easy to be hardened;

车削刀具各部分作用

The Names of Each Part of Turning Tools

四、刃倾角的作用 Effects of inclined angle

刃倾角的正负决定了切屑的排出方向，还影响刀尖强度和抗冲击性能。

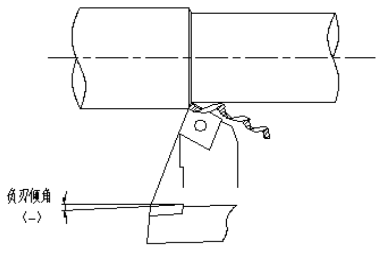
Positive or negative inclined angle determines the direction of chip flow, and also affects the strength and impact resistance of insert nose.

(1)如下图所示，当刃倾角为负时，即刀尖相对于车刀的底平面处于最低点， 切屑流向工件已加工表面。

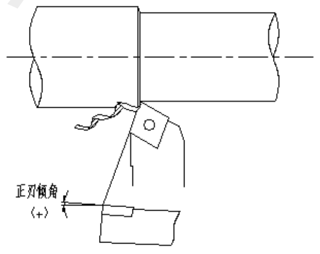
As diagram (1) shows, when the inclined angle is negative, namely nose is in the lowest point as apposed to eht bottom of tool, chips flow to the machined surface of workpiece.

（2）如下图所示，当刃倾角为正时，即刀尖相对于车刀的底平面处于最高点，切屑流向工件未加工表面。

As diagram (2) shows, when inclined angle is positive.namely the nose is in the highest point as apposed to the bottom of the tool,chips flow to the areas of workpiece surface that haven’t been machined.



Negative inclined angle



Positive inclined angle

刃倾角的变化还能影响刀尖的强度和抗冲击性能。当刃倾角取负值时，刀尖在切削刃的最低点，切削刃切入工件时，切入点在切削刃或前刀面，保护刀尖免受冲击，增强刀尖强度。一般大前角刀具通常选用负的刃倾角，既可增强刀尖强度，又可避免刀尖切入时产生的冲击。

The change of inclined angle also affects insert nose strength and impact resistance.When the inclined angle is negative.the nose is in the lowest point of cutting edge.When the cutting edge enters the workpiece,the contacting point is on the cutting edge or rake face,proteting the nose from impact and increase the strength of the nose.Normally,negative inclined angle should be chosen for tools with big rake angle.This can not only increase nose strength.But also prevent the impact of entry.

车削刀具各部分作用

The Names of Each Part of Turning Tools

五、主偏角的影响 Effects of approach angle

减小主偏角可以使刀具强度提高，散热条件好，加工表面粗糙度小。这是因为主偏角小时，切削宽度长，故单位切削刃长度上受力小。同时主偏角减小能提高刀具的寿命。

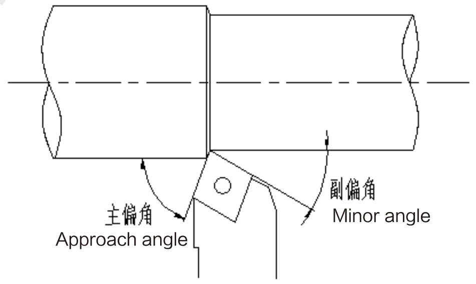
Reduces approaching angle increases the strength of tools and enable heat to diffuse easily,improving surface quality.This is becauce when the approach angle is small,cutting edge width is large,and then the unit width of cutting edge bears less cutting force.Meanwhile, tool life can be improved.

通常，在车细长轴和阶梯轴时，选90° 主偏角；在车外圆、端面和倒角时，选45° 主偏角。

增大主偏角，径向分力减小，切削平稳，切削厚度增大，断屑性能好。

Normally, select 90° approach angle for turning of slender and step shaft; select 45° approach angle for external turning. End surface machining and chamfering.When approach angle is larger,radial force is reduced,cutting is stable ,cutting thickness is increased,and chip breaking is excellent.

选值 Value selection	具体情况 Situations
小主偏角 Small approach	高强度、高硬度和表面有硬化层的材料 For those materials with high intensity,high hardness and hardened layer on the surface
大主偏角 Big approach angle	机床刚性不足时 When rigidity of the machine is not enough



株洲欧科亿数控精密刀具股份有限公司

车削刀具各部分作用

The Names of Each Part of Turning Tools

六、副偏角的影响 Effects of minor angle

副偏角是影响表面粗糙度的主要角度，它的大小也影响刀具强度。过小的副偏角，会增加副后面与已加工表面间摩擦，引起振动。

副偏角的选择原则是，在粗加工或者不影响摩擦和产生振动的条件下，应选取较小的副偏角；在精加工时可选择较大的副偏角。.

Minor angle is the main angle that can affect surface quality,and it can also affect tool strength.If the approach angle is too small, the friction between the secondary flank and machined surface of workpiece will increase,causing vibration.

The principle of selecting minor angle:Select small minor angle when roughing or when the friction is unaffected and is on vibration.Select large minor angle when finishing.

七、刀尖圆弧半径 Nose radius

刀尖圆弧半径对刀尖强度及加工表面粗糙度影响很大。

刀尖圆弧半径大，切削刃强度增大，刀具前、后刀面磨损可以在某种程度上减小。但刀尖圆弧半径过大时，径向切削力增加，易产生振动，影响加工精度和工件表面粗糙度。

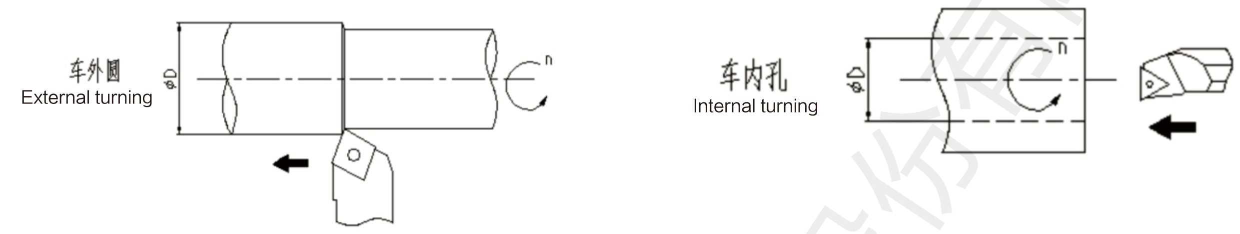
Nose radius significantly affects nose strength and surface quality. Large nose radius means higher cutting edge strength,and the abrasion on the rake face and clearance face can be reduced to some extent. However,if the nose radius is too large,radial force will increase,and vibration is easy to occur,affecting machining precision and surface quality.

选值 Value selection	具体情况 Situations
小的刀尖圆弧半径 Small nose radius	1.小切深的精加工 Finishing at small cutting depth 2.加工细长轴类零件 Machining parts such as slender shaft 3.机床刚性不足时 When the rigidity of the machine is not enough
大的刀尖圆弧半径 Large nose radius	1.粗加工时 When roughing/When machining hard 2.加工硬材料，断续切削时 materials(intermittent cutting) 3.机床刚性好时 When the rigidity of the machine is not enough

车削加工参数计算方法

Tool Wear and Solution

一、切削速度的计算 Calculation of cutting speed



$$Vc = \frac{\pi \times D \times n}{1000}(m/\min)$$

式中：Vc：切削速度(m/min)

n：主轴转速(rev/min)

D：工件直径(mm)

例如：主轴转速为280rev/min，切削直径为150mm的工件，其切削速度为：

In the formula：Vc：Cutting speed(m/min)

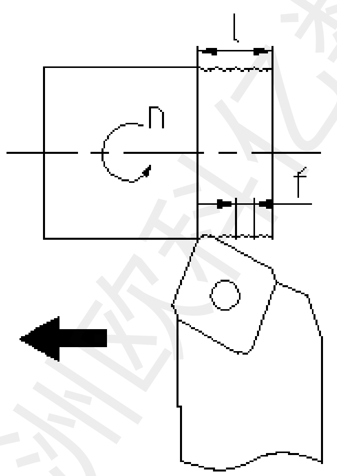
n：Rotating speed of main axle (rev/min)

D：Diameter of workpiece(mm)

For example：When the rotating speed is 280rev/min and the diameter of workpiece is 150mm,the cutting speed should be：

$$Vc = \frac{\pi \times D \times n}{1000} = \frac{3.14 \times 150 \times 280}{1000} = 132(m/min)$$

二、进给量的计算 Calculation of feed rate



$$f = \frac{l}{n}(mm/rev)$$

式中：f：每转进给量(mm/rev)

l：每分钟切削长度(mm/min)

n：主轴转速(rev/min)

例如：主轴转速为500rev/min，每分钟切削长度为100mm/min，其每转进给量为：

In the formula：f：Feed rate per rotation(mm/rev)

L：Cutting length per minute(mm/min)

N：Rotating speed of main axle(rev/min)

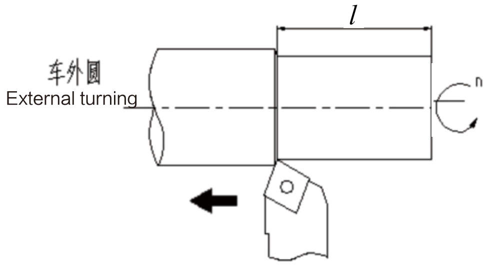
For example：When the rotating speed of main axle is 500rev/min, and the cutting length per minute is 100mm/min,the feed rate per rotating should be：

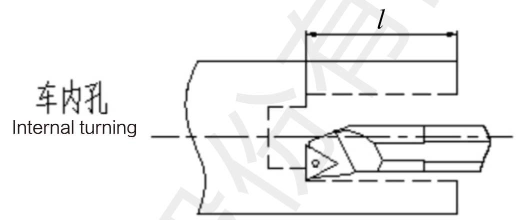
$$f = \frac{l}{n} = \frac{100}{500} = 0.2(mm/rev)$$

车削加工参数计算方法

Tool Wear and Solution

三、外圆、内孔切削时间的计算 Cutting time calculation of external and internal turning





$$T=\frac{l}{f\times n}(\min)$$

式中：T：切削时间(min)

l：被切削部分长度(mm)

f：进给量(mm/rev)

n：主轴转速(rev/min)

例如：求主轴转速为250rev/min，进给量为0.2mm/rev，切削长度为150mm的工件所用时间：

In the formula：T：Cutting time(min)

L：length of machined areas(mm)

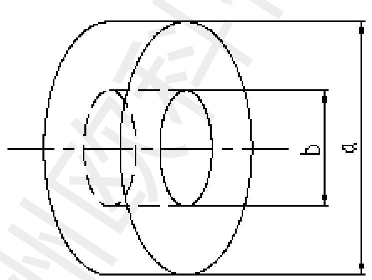
F：Feed rate(mm/rev)

N：Rotating speed of main axle(rev/min)

For example：When the rotating speed of main axle is 250rev/min, and the feed rate is 2.0mm/rev.the time needed for a cutting length of 150mm should be：

$$T=\frac{l}{f\times n}=\frac{150}{0.2\times 250}=3(\min)$$

四、端面切削时间的计算（恒线速） Time calculation end surface turning (constant linear speed)



$$T=\frac{\pi\times(a^2-b^2)}{4000\times Vc\times f}(\min)$$

式中：T：切削时间(min)

Vc：切削速度(m/min)

f：进给量(mm/rev)

当所切削的端面无内孔时，b=0，公式亦适用。

In the formula：T：Cutting time(min)

Vc：length of machined areas(mm)

F:Cutting spead

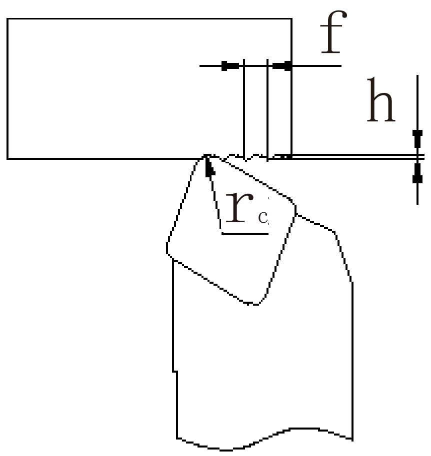
For end surface without hole, b=0, the formula is still Valid.

A
B
C
D/1

车削加工参数计算方法

Tool Wear and Solution

五、已加工表面粗糙度的理论值计算 The oretical value calculation of machined surface roughness



$$R=\frac{f^2}{8r_c}\times 1000(\mu m)$$

式中：R：已加工表面粗糙度理论值(μm)

f：进给量(mm/rev)

rc：刀尖圆弧半径(mm)

例如：进给量为0.2mm/rev，刀尖圆弧半径为0.4mm时，其已加工表面粗糙度理论值为：

In the formula：R：Theoretical roughness value of machined surface

F：Feed rate(mm/rev)

Rc：Nose radius(mm)

For example：When the feed rate is 0.2mm/rev,and the nose radius is 0.4mm. the theoretical roughness value of machined surface should be：

$$R=\frac{f^2}{8r_c}\times 1000=\frac{0.2^2}{8\times 0.4}\times 1000=12.5(\mu m)$$

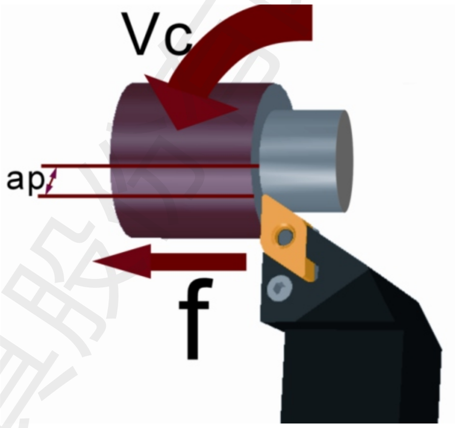
车削三要素对加工的影响

Tool Wear and Solution

三要素的影响 Effects of three main parameters

我们在切削加工中，通常都希望获得短的加工时间，长的刀具寿命和高的加工精度。因此，必须充分考虑工件材料的材质、硬度、形状状况及机床的性能，选择合适的刀具并使用高效率的切削条件，即我们所说的三要素。

Normally,short machining time,long tool life and high machining precision are expected in machining,so the material quality,hardness,and shape of the workpiece,and properties of machine should be fully consodered and then we can select suitable tools and adopt high-efficiency cutting parameters,namely three parameters.



切削速度（Vc）Cutting speed(Vc)

工件在车床上旋转，我们将其每分钟的转数定义为主轴转速（n）。由于工件旋转，在其直径的切削点处产生切削速度，称为线速度，单位米/分钟。通常用线速度来考虑切削速度对加工的影响。

When the workpiece is rotating on the machine,the number of is rotation per minute is defined as Rotating speed of main axle(n).Because of its rotation,the cutting speed measured on the contacting point of diameter is defined as linear speed.m/min.Normally,linear,linear speed is considered to measure the effect of cutting speed on machining

切削速度的影响 Effect of cutting speed

切削速度对刀具寿命有非常大的影响。提高切削速度时，切削温度就上升，而使刀具寿命大大缩短。加工不同种类、硬度的工件，切削速度会有相应的变化。通过大量的切削实验得出：

Cutting speed has significant effect in tool life.When the cutting speed is increased,cutting temperature will increase and tool life will be shortened.Cutting speed varies according to the different types and hardness of work-piece.The below congclusions are reached after many cutting experiments:

（1）在通常情况下，切削速度提高20%，刀具耐用度降低1/2；切削速度提高50%，刀具耐用度将降至原来的1/5。

(1)Normally tool life would be reduced to half when the cutting speed is increased by 20%. Tool life would be 20% of the original life if the cutting speed is raised by 50%。

（2）低速（20-40m/min）切削易产生振动，使刀具寿命缩短。

(2)Low speed(20-40m/min)cutting could easily cause vibration and shorten tool life.

车削加工参数计算方法

Tool Wear and Solution

进给量（fn） Feed rate(fn)

进给量是指工件每旋转一周，刀具的移动量，单位为毫米/转。

Feed rate is defined as the moving distance of tool after workpiece rotates for one circle,measured by mm/rotation.

进给量的影响 Feed rate(fn)

进给量是决定被加工表面质量的关键因素，同时也影响加工时切屑形成的范围和切屑的厚度。

在对刀具寿命影响方面，进给量过小，后刀面磨损大，刀具寿命大幅降低；进给量过大，切削温度升高，后刀面磨损也增大，但较之切削速度对刀具寿命的影响要小。

Feed rate is a key factor that determines surface quality. Meanwhtile it also affect the range of chip forming and the thickness of chips during machining.

In term of the effect on tool life,small feed rate leads to serious abrasion on clearance face,reducing tool life.

切削深度（ap） Cutting depth(ap)

切削深度指未加工表面与已加工表面之间的差值，单位毫米。它是工件未加工直径与已加工直径差值的一半。

Cutting depth is defined as the difference between machined surface and unmachined surface.Measured by mm.it is half the difference value between the original diameter and machined diameter.

切削深度的影响 Effect of cutting depth

切削深度应根据工件的加工余量、形状、机床功率、刚性及刀具的刚性来确定。

切削深度变化对刀具寿命影响不大。切削深度过小时，会造成刮擦，只切削刀工件表面的硬化层，缩短刀具寿命。当工件表面具有硬化的氧化层时，应在机床功率允许范围内选择尽可能大的切削深度，以避免刀尖只切削工件的表面硬化层，造成刀尖的异常磨损甚至破损。

Cutting depth should be determined by the machining alllowance and shape of workpiece,power and rigidity of machice, and tool rigidity.

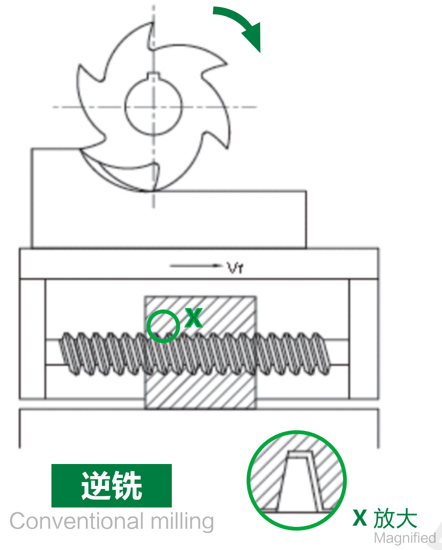
The change of cutting depth has little effect on tool life.If the cutting depth is too low. The cutting nose only scrapes the hardened layer on the workpiece surface.reducing tool life.When there is hardened oxide layer on workpiece surface,higher cutting depth should be adopted within the possible range of machine’s power to avoid cutting nosr just cutting the hardened layer of workpiece.

D-2 技术信息
TECHNICAL INFORMATION

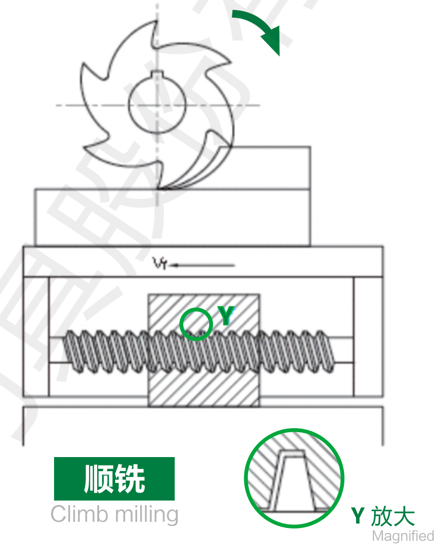
铣削刀具 Milling Tools

可转位铣削刀具技术信息
Technical Information About Indexable Miling Tools

顺铣和逆铣的差别和选择 Difference and selection between down miling and up miling



逆铣
Conventional milling



顺铣
Climb milling

逆铣：铣刀与工件接触部分的旋转方向与切削进给方向相反的铣削方式。

Conventional milling(also called up milling):the feed direction of workpiece is opposite to that of the milling rotation at the connecting position

顺铣：铣刀与工件接触部分的旋转方向与切削进给方向相同的铣削方式。

Climb milling(also called down milling):the feed direction of workpiece is the same as that of the milling rotation at the connecting position

顺铣时，切削刃主要受到的是压应力，逆铣时，切削刃受到的是拉应力。硬质合金材料抗压强度比抗拉强度大得多；顺铣时，切屑由厚变薄，刀刃与工件间相互挤压，刀齿与加工表面相对滑行时摩擦小，可减小刀齿磨损，减少加工表面硬化、减小表面粗糙度Ra值。逆铣时，切屑由薄变厚，刀片切入时产生强烈的摩擦、较顺铣产生更多的热量和使加工表面硬化。

逆铣时，由于铣刀作用在工件的水平切削力方向与工件进给方向相反，所以工作台丝杠与螺母的一个侧面紧密结合。而顺铣切削时铣削力的方向与进给方向一致，当刀刃对工件的水平面作用力大到一定程度时工作台会发生窜动，从而将间隙留在后侧，随着丝杠的继续转动，间隙又恢复到前侧。在这一瞬间工作台停止运动；当下次水平切削分力又大到一定程度时，工作台会再次窜动。工作台的这种周期性的窜动，将严重影响加工质量和损坏刀具。

使用立铣刀顺铣时，刀齿每次都是由工件表面开始切削，所以不宜用来加工有硬皮的工件。

铣削薄壁零件或精度较高的方肩铣采用逆铣。

In down milling,the major force of cutting edge is compressive stress,white in up milling the tensite stress.The compressive strength ofcemented carbide material is much larger than its tensile strength.In down milling,as chips become thin from thick gradually,cutting edge and workpiece press against each other.The friction between edge and workpiece is small,thus reducing the abrasion of edge,the hardening of workpiece surface and the surface roughness(Ra).in up milling ,chips become thick from thin gradually.When the insert is cutting into the workpiece,it produces strong friction and more heat than in down milling,and make workpiece surface hardened.

In up milling,because horizontal direction of cutting force milling cutter conducting on workpiece is opposite to the feed direction of workpiece,the lead screw of worktable joints closely with oneside of the screw nut.In down milling,the direction of cutting force is the same as the feed direction.When edge's radial force on workpiece is large enough,the worktable will bounce left and right,thus make the gap fall behind.The gap will return to the front side with the continuing rotation of lead screw.At this moment the worktable stops motion,however,it will bounce left and right again when the radial cutting force is large enough again.The periodical bounce of worktable will cause poor surface quality of workpiece and tool breakage.

When using end mills for down milling,the edges always starts cutting at the workpiece surface,therefore end mills are not suitable for machining workpiece with hardened surface.

Up milling is recommended for milling thin-wall components or square milling with high requirenment for precision.

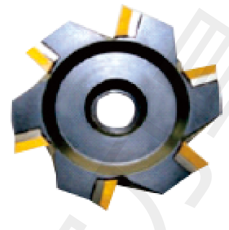
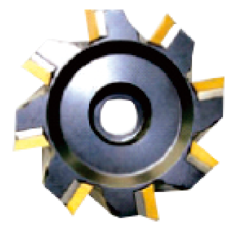
A
B
C
D/2

刀具齿距的选择

Pitch Selection

铣削刀具齿距是刀刃上某点和下一刀刃相同点之间的距离。铣削刀具分疏齿、密齿、超密齿。

Pitch is the distance between one point on one cutting edge and the same point on the next edge.Milling cutters are mainly classified into coarse.Close and extra close pitches

操作稳定性 Optimized stability		
L(低）	M(中)	H(高)
疏齿 Coarse pitch　不等齿距设计 unequal pitch design 	密齿 Close pitch 	超密齿 Extra close pitch 
切宽等于刀具直径时，加工系统稳定，机床主电机功率足够时，选择疏齿刀具，可得到高的生产效率 When the milling width is equal to diamete of cutter,the machining system is stable and main power of machine is sufficient,the use of coarse pitch can achieve high productive efficiency.	一般用途铣削和多种混合生产。 Used in general milling and multiple mixed productions.	切宽小于刀具直径时，以最多的刀刃来参与切削，可获得高的生产率。 When the milling width is less than diameter of cutter. cutting by maximum edges can achieve high productive effciency.

选择主偏角 Selection of approach angle

铣削刀具的主偏角是由刀片与刀体形成的，主偏角影响切削厚度、切削力和刀具寿命。在给定的进给率下，减小主偏角，则切削厚度会减小，可使切削刃在更大的切削范围内与工件接触。

较小的主偏角可使刀片更为平稳的步入或退出刀具表面，这有助于减少径向力、保护刀刃，并减少破损机率。但会增大轴向力，故不适用加工薄板类零件。

The approach angle is formed by insert and tool body. Lt affects chip thickness.Cutting forces and tool−life.Decreasing the approach angle reduces chip thickness and expands the cutting area between cutting edge and workpiece at a given feed rate.

A Smaller approach angle also ensures stable entry into or exiting workpiece,protecting the cutting edge and extending tool life.However,this will increase axial cutting forces on the workpiece,thus is not suitable for machining thin workpiece Such as thin plate.

主偏角 Approach angle	每齿进给量 Feed rate per tooth	实际最大切削厚度 Maximum chip stickiness
90°	fz	$hex=fz\times sinkr$
75°	fz	$hex=0.96\times fz$
60°	fz	$hex=0.86\times fz$
45°	fz	$hex=0.707\times fz$
圆刀片	fz	$hex=\frac{\sqrt{ic^2\times(ic-2a_p)^2}}{ic}\times f_z$

通用公式

The Names of Each Part of Milling Tools

Vc ：切削速度(m/min)
Vc ：cutting speed(m/min)

fz ：每齿进给量(mm/z)
fz ：feed rate per tooth (mm/z)

Zn ：刃数
Zn ：number of teeth

fz ：每转进给量(mm/rev)
fz ：feed rate per revolution(mm/rev)

Vf：工作台进给量（进给速度）(mm/min)
Vf：feed rate of worktable(feed speed)(mm/min)

n：主轴转速(rev/min)
n：number of teeth

Tc：加工时间(min)
Tc：machining time(min)

L：实际走刀距离(mm)
L：Actual working distance(mm)

Dc：铣刀公称直径(mm)
Dc：nominal diameter of milling tool(mm)

π：圆周率≈3.14
π：circumference ratio≈3.14

Q：金属去除率(cm³/min)
Q：metal removal rate(cm³/min)

切削速度 Cutting speed

$$Vc=\frac{\pi\times Dc\times n}{1000}\ (m/min)$$

主轴转速 Spindle speed

$$n=\frac{1000\times Vc}{\pi\times Dc}\ (rev/min)$$

工作台进给量（进给速度）
Feed rate of worktable(feed speed)

$$Vf=fz\times n\times zn\ (mm/min)$$

每齿进给量 Feed rate per tooth

$$fz=\frac{Vf}{n\times Zn}\ (mm/z)$$

每转进给量 Feed rate per revolution

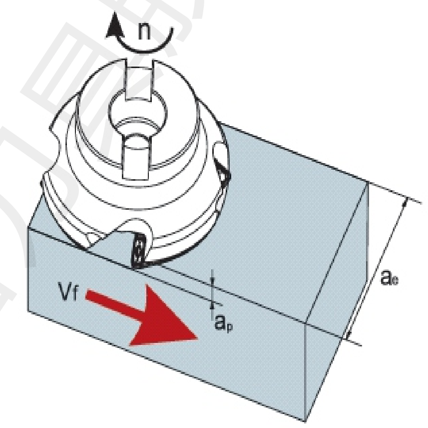
$$fn=\frac{Vf}{n}\ (mm/rev)$$

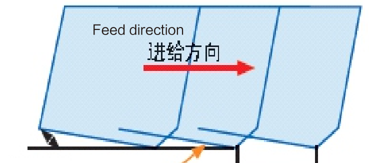
加工时间 Machining time

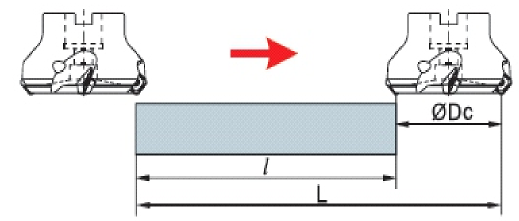
$$Tc=\frac{L}{Vf}\ (min)$$

金属去除率 Metal removal rate

$$Q=\frac{ap\times ae\times Vf}{1000}\ (cm^3/min)$$

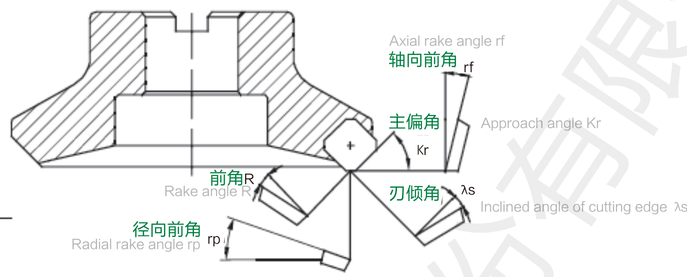






铣削刀具各部分的作用

Function of Each Part in Face Milling



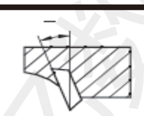
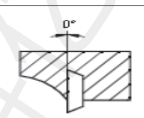
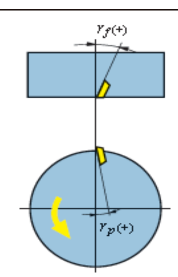
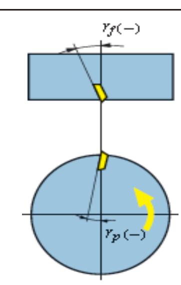
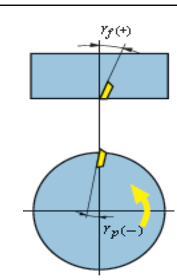
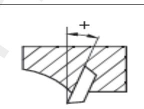
平面铣刀主要角度标注

Main angles of face mills

平面铣刀主要角度标注 Main angles of face mill

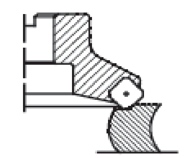
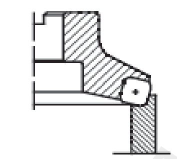
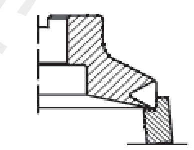
名称 Designation	作用 Function	效果 Effect		
轴向前角rf Axial rake angle rf	决定排屑方向 Determining the chip direction	角度为负：排屑性能好 Negative, excellent capability of chip removal		
径向前角rp Radial rake angle rp	决定切削轻快与否 Determining whether the cutting is easy and fast or not	角度为正：排屑性能好 Positive angle:good cutting performance		
主偏角Kr Approach angle Kr	决定切屑厚度 Determining the chip thickness	Kr↑,切削厚度↑； Kr↓,切削厚度↓ Kr↑,chip thickness↑;Kr↓chip thickness↓		
前角R Rake angle R	决定切削轻快与否 Determining whether easy and fast the cutting is or not	切削性能差，切削刃强度高 Poor cutting performance, High-strength cutting edge	(－)←0→□+□	切削性能好,切削刃强度低 Good cutting performance, Low-strength cutting edge
刃倾角λs Inclined angle of cutting edge λs	决定排屑方向 Determining the chip flow direction	排屑性能差，切削刃强度高 Poor capability of chip removal, High-strength cutting edge	□－□←0→□+□	排屑性能好,切削刃强度低 Good performance of chip removal, Low-strength cutting edge

不同前角的组合特征 Characteristics of different rake angles combined

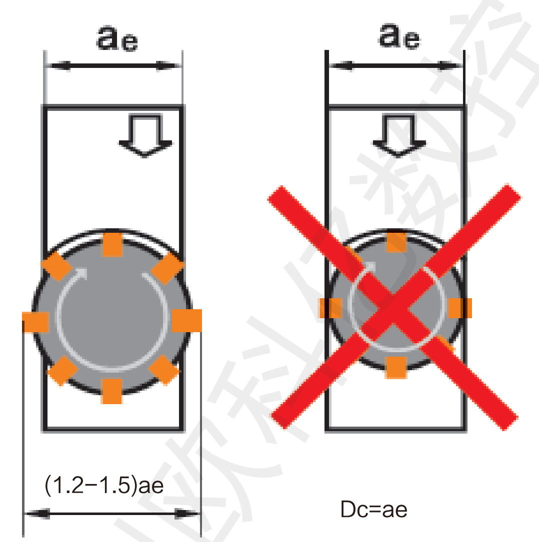
负型前角 Negative rake angle		双正前角 Double posotove rake angle	双负前角 Double negative Rake angle	一正一负前角 Positive and negative negative rake angle
零度前角 0° rake angle				
正型前角 Positive rake angle				
轴向前角rf Axial rake angle rf		+	–	+
径向前角rp Radial rake angle rp		+	–	–
适合加工材料 Applicable material machined	P	√		√
	M	√		√
	K		√	√
	N	√		
	S	√		√

不同主偏角的切削性能

Selection Method of Cutting Tools

主偏角 approach angle	45°	75°	90°
示意图 Schematic diagram			
说明 Instruction	轴向分力最大。加工薄壁零件时，工件会发生扰曲，导致加工件的精度下降；加工铸铁时，有利于防止工件边缘产生崩落。 Axial force is the largest,it will bend when machining thin-wall workpiece,reducing the precision of workpiece.It can help avoid fringe brekage of workpiece when machining cast iron	主要的为径向切削分力，是平面铣削最常用的一种主偏角。 The main force is radial cutting force, in is often used in general face milling	理论上轴向分力为零，适合于薄板件的铣削。 he axial is zero in theory,suitable for milling thin plate workpiece

面铣中切宽与刀具切削直径的选择 Selection pf cutting width and tool cutting diameter in face milling



DC:刀具切削直径　Tool cutting diameter
ae：切削宽度　Cutting width

一般来说，切削宽度与刀具的切削直径与切宽的关系为：DC=（1.2—1.5）ae。在实际加工中尽量避免刀具中心与工件中心相重合

Generally speaking,the relation between cutting width and tool cutting diameter is Dc=(1.2–1.5)ae
in practical machining,same center line of tool center and work piece center should be avoided.

D-3 技术信息
TECHNICAL INFORMATION

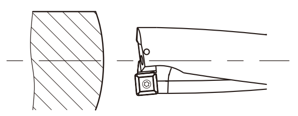
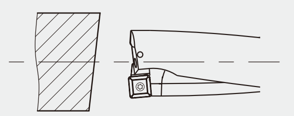
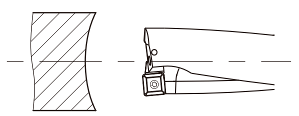
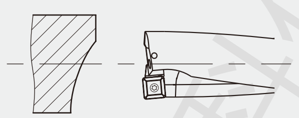
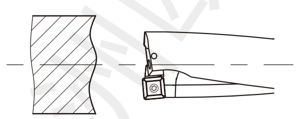
钻削刀具 Drilling Tools

可转位浅孔钻技术信息
Drilling Application

钻头的钻入 initial drill peneration

钻头的钻入是钻削成功的重要因素。保证良好的孔质量的方法之一是保证工件的钻入表面与钻头的中心轴线垂直。
此外，可转位浅孔钻还可以通过调整进给，来加工凸的、凹的、倾斜的和不规则的钻入表面。

Initial drill peneration is an important factor for suceessful drilling. one way of ensuring good hole quality is to make sure the peneration surface of the workpiece is vertical to the drill centre axis.
In addtion, an indexable drill can carry our inital peneration of convex, concave, inclined and irregular surfaces by adjusting rates.

加工表面情况 workpiece surface	应对措施 countermeasures
	对于凸的表面，其加工条件相对较好，并且钻心能理想地首先与工件接触，因而可采用正常的进给。 For a convex surface, the conditions are relatively good and the centre of the drill ideally makes contact with the workpiece first, thus normal feed can be adopted.
	被钻削的零件表面为倾斜表面，切削刃受到不均匀的负荷，会使切削刃过早的磨损。如果倾斜表面的角度超过2° 进给应减小推荐值的1/3。 When penerating an inclined surface, the cutting edges will be unevenlly loaded, which may result in the premature drill abrasion. if the angle of the inclined surface is larger than 2° , the feed should be reduced to 1/3 of the value recommended for the drill.
	在钻入凹的表面时，通常会造成钻头轴心偏离中心，对于这种情况进给应减小到推荐值的1/3。 When drilling into non-sysmmetric curved surface, the drill tends to deviate from the centre because it is penetrating an inclined surface. the feed should be reduced to lower than the value recommended for the initial peneration of concave surface.
	在钻入不对称的曲面时，由于是钻入倾斜表面，所以钻头可能会偏离中心，此时进给的选择比钻入凹表面时应更小。 When drilling into irregular surface, the insert faces the risk of chipping, which may also occur when drilling through the workpiece.therefore, the feed rate should be reduced.reduced to lower than the value recommended for the initial peneration of concave surface.
	在钻入不规则表面时，会出现刀片崩刃的危险，在开始钻削时心须减少进给量，同时在钻头钻通时也可能会出现这种情况，因此也必须减小进给。 When drilling into irregular surface, the insert faces the risk of chipping, which may also occur when drilling through the workpiece. therefore, the feed rate should be reduced

浅孔钻加工相关参数计算方法

Calculations for Shallow Drilling

切削速度

$$V_c = \frac{D_c \times \pi \times n}{1000}$$

Vc(m/min): 切削速度
Dc(mm): 钻头直径
n(rev/min): 转速

实例:

主轴转速为 1600rev/min, 钻头直径为ϕ20mm, 其切削速度为:

$$V_c = \frac{D_c \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100\ (m/min)$$

Cutting speed

$$V_c = \frac{D_c \times \pi \times n}{1000}$$

Vc(m/min):cutting speed
Dc(mm):drill diameter
n(rev/min):rotating speed

实例:

Spindle speed is 1600rev/min, drill diameter is 20mm, thus cutting speed is:

$$V_c = \frac{D_c \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100\ (m/min)$$

孔加工时间

$$T_c = \frac{I_d \times i}{n \times f}$$

Tc(min): 加工时间
fr(mm/rev) 每转进给量
i: 孔数量　ld(mm): 钻孔深
n(rev/min): 主轴转速

实例:

钻一个直径为ϕ20mm，深为 40mm 的孔，切削速度为 100m/min, 每转进给量为 0.1mm/rev, 求钻削时间:

$$n = \frac{V_c \times 1000}{D_c \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600\ (rev/min)$$

$$T_c = \frac{l_d \times i}{n \times f_r} = \frac{40 \times 1}{1600 \times 0.1} = 0.25\ (min)$$

Machining time

$$V_c = \frac{D_c \times \pi \times n}{1000}$$

Tc(min):machining time
fr(mm/rev)feed rate per revolution
i:umber of holes　ld(mm):drilling depth
n(rev/min):spindle speed

实例:

Drilling a hole with a diameter of 20mm and a depth of 40mm,cutting speed is 100m/min and feed rate per revolution is 0.1mm/rev.Calculate the drilling time.

$$n = \frac{V_c \times 1000}{D_c \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600\ (rev/min)$$

$$T_c = \frac{l_d \times i}{n \times f_r} = \frac{40 \times 1}{1600 \times 0.1} = 0.25\ (min)$$

进给速度

$$V_f = f_r \times n\ (mm/min)$$

Vf(mm/min): 进给速度
fr(mm/rev): 每转进给量
n(rev/min): 主轴转速

实例:

主轴转速为 1500rev/min, 每转进给量为 0.1mm/rev, 其进给速度为:

$$V_f = f_r \times n = 0.1 \times 1500 = 150\ (mm/min)$$

Feed speed

$$V_f = f_r \times n\ (mm/min)$$

Vf(mm/min):feed speed
fr(mm/rev):feed rate per revolution
n(rev/min):spindle speed

实例:

Example:spindle speed is 1500 rev/min, feed rate per revolution is 0.1 mm/rev, thus feed speed is:

$$V_f = f_r \times n = 0.1 \times 1500 = 150\ (mm/min)$$

金属去除率

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000}$$

Q(cm³/min): 金属去除率
Dc(mm): 钻头直径
Vf(mm/min): 进给速度

实例:

一个直径为ϕ20mm 的钻头，加工时的进给速度为 160mm/min, 其金属去除率为:

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{4 \times 1000} = 50.24\ (cm^3/min)$$

metal removal rate

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000}$$

Q(cm³/min):metal removal rate
Dc(mm):drill diameter
Vf(mm/min):feed speed

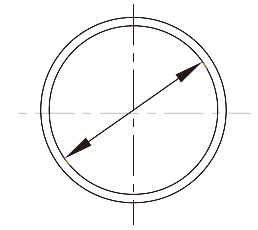
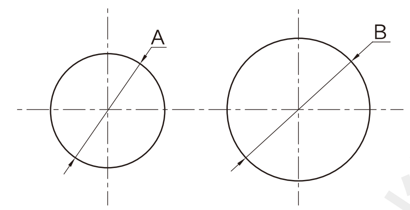
实例:

Example:drill diameter is 20mm, feed speed is 160mm/rev, thus metal removal rate is:

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{4 \times 1000} = 50.24\ (cm^3/min)$$

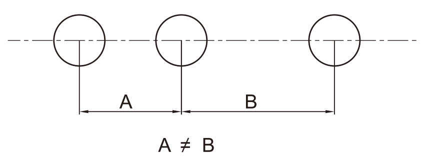
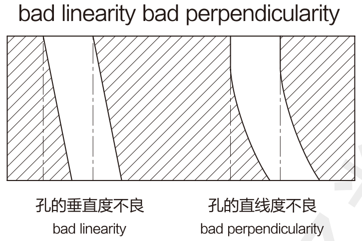
孔加工孔常见问题及解决方法

Common Problems and Solutions for Drilling

现象 problem	原因 cause	解决方法 solution
孔径扩大Oversize holes 	钻头装夹不好 主轴本身跳动量过大 Poor clamping Large run-out around spindle	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precisioncalibrating spindle Check and adjust after clamping drill
	顶角不对称 钻头跳动过大 横刃偏心 Non-symmetric point angle Large run-out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Check the precision after clamping drill
孔径的一致性较差 irregular hole size  A ≠ B	顶角不对称 钻头跳动过大 横刃偏心 刃带棱面磨损过大 Non-symmetric point angle Large run-out Chisel edge is off center Excessive margin abrasion	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precision Calibrating spindle Check and adjust after clamping drill
	钻头装夹不好 主轴本身跳动量过大 工件装夹不牢固 Poor clamping Large run-out around spindle Workpiece is not firmly held	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precision Calibrating spindle Check and adjust after clamping drill
	进给量过大 Feed rate is too high	降低进给速度 Reduce the feed speed
	切削液供给不足 Coolant provide is not enough	改变切削液供给方法，增加流量 Change the coolant supply method, Or increase coolant volume

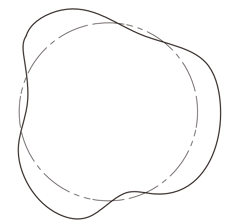
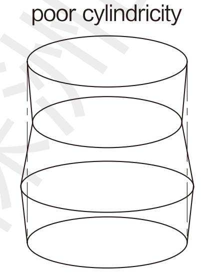
孔加工孔常见问题及解决方法

Common Problems and Solutions for Drilling

现象 problem	原因 cause	解决方法 solution
孔的位置精度较差 low position accuracy 	机床主轴重复定位精度低 钻头装夹不好 主轴本身跳动量大 Poor re-positioning of spindle Poor clamping Large run-out around spindle	提高机床重复定位精度 选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Improve the re-positioning precision of Machineselect the holder and chuch With high precision Calibrating spindle Check and adjust after clamping drill
	被加工表面进给方向不垂直 The feed direction is not Vertical to the workpiece Surface	将被加工表面调整成与进给方向垂直 Adjust the feed direction vertical to The workpiece
	顶尖与轴心不重合(车床) Top center not align with the Spindle center	加工前仔细调整 Check and adjust alignment carefully Before drilling
直线度不良 垂直度不良 bad linearity bad perpendicularity 	刀具磨损过大 Excessive margin abrasion	重新修磨 Regrind
	中心孔精度不好 Poor center hole accuracy	提高中心孔位置精度 Increase the position accuracy of hole
	顶角不对称 钻头跳动过大 横刃偏心 Non–symmetric point angle Large run–out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Chech the precision after regrinding
	钻头刚性不足 Insufficient drill rigidity	提高钻头刚性 Increase drill rigidity
	被切削平面不平 顶尖与轴心不重合(车床) Uneven workpiece rigidity Top center not align with the Spindle center (lathe)	调整为水平面或预加工为水平面 预钻中心孔 The workpiece must be horizontal or Premachined to horizontal before drilling Pre–drill a center hole

孔加工孔常见问题及解决方法

Common Problems and Solutions for Drilling

现象 problem	原因 cause	解决方法 solution
圆度较差 poor roundness 	顶角不对称 钻头跳动过大 横刃偏心 Non–symmetric point angle Large run–out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Chech the precision after regrinding
	钻头装夹不好 主轴本身跳动量大 工件装夹不牢固 Poor clamping Large run–out around spindle Workpiece is not firmly held	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precisioncalibrating spindle check run Out and adjust after clamping drill
	后角过大 Clearance angle is too large	重新修磨切削刃 Regrind drill
	钻头刚性不足 Insufficient drill rigidity	提高钻头刚性 Increase drill rigidity
被加工工件表面质量差 poor workpiece surface quality	修磨不当 Incorrect regriding	重新修磨校正 Regrind calibration
	切削液供给不足或型号不匹配 Insufficient coolant or Unsuitable coolant type	改变切削液供给方法，增加流量 采用润滑性好的切削油 Change the coolant supply method, Or increase coolant volume
	钻头装夹不好 主轴本身跳动量大 Poor clamping Large run–out around spindle	选择精度高的刀柄及夹具 校正主轴 Select the holder and chuch with high Precisioncalibrating spindle
	进给速度过大 Feed rate is too high	降低进给速度 Decrease the feed rate
	切削刃磨损过大，刃带棱面粘结严重。 Excessive abrasion on Cuttingedge Excessive build–up on margin	重新修磨切削刃，使用涂层钻头 Regrind drill Select a coated drill
	切削阻塞 Chip jamming	重选钻头(容屑槽型、螺旋角等) 重选加工方法 (进给速度的调整，采用分步阶梯方式等) Select a suitable drill(considering flute Geometry, helical angle etc)change the Cutting method (adjust feed rate, use Step feed etc.)
圆柱度较差 poor cylindricity 	顶角不对称 钻头跳动量过大 横刃偏心 刃带棱面磨损过大 Non–symmetric point angle Large run–out Chisel edge is off center Excessive margin abrasion	重修磨刀具 修磨后检查精度 Regrind drill Chech the precision after regrinding
	进给速度过低 Feed rate is too low	提高进给速度 Increase the feed speed

浅孔钻推荐切削参数表

Shallow Drilling Recommend Cutting Parameter Chat

ISO	材料 Material	硬度HB	直径Dc mm	进给量fn mm/r	切削速度 Vc m/min
P	碳钢 Carbon steel	80–200	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.09 0.06–0.10 0.07–0.11 0.08–0.12	200(170–240)
P	低合金钢 Low alloy steel	150–260	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.14 0.08–0.16 0.10–0.20	170(140–220)
P	高合金钢 High alloy steel	150–320	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.16 0.08–0.18 0.10–0.22	150(120–180)
P	铸钢 Cast steel	180–250	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.08 0.05–0.08 0.06–0.10 0.07–0.11 0.07–0.12	140(120–170)
M	不锈钢 Stainless steel 铁素体 Ferritic stainless steel 马氏体 Martensitice stainless steel	150–270	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.16 0.08–0.18 0.10–0.22	160(110–230)
M	奥氏体 Austenite stainless steel	150–275	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.11 0.06–0.13 0.08–0.14 0.10–0.16	140(110–220)
K	可锻铸铁 Malleable cast iron	150–230	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.10 0.05–0.14 0.08–0.16 0.10–0.20 0.12–0.24	160(120–220)
K	灰口铸铁 Grey cast iron	150–220	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.10 0.05–0.14 0.08–0.16 0.10–0.20 0.12–0.24	200(170–240)
K	球墨铸铁 Nodular cast iron	160–250	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.14 0.08–0.16 0.10–0.20	160(130–200)
N	铝合金 Alloy aluminum	60–110	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.10 0.05–0.14 0.08–0.16 0.10–0.20 0.12–0.24	300(250–350)

D-4 技术信息

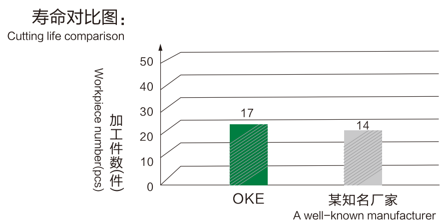
TECHNICAL INFORMATION

应用案例

Application Cases

不锈钢加工案例
Stainless sted cutting application cases

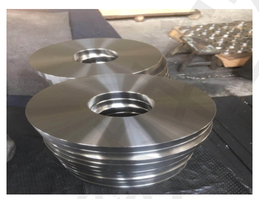
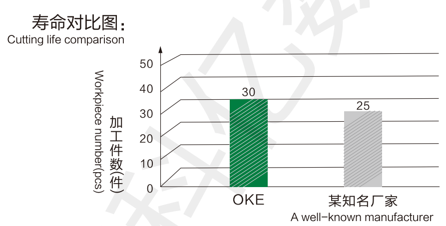




客户名称： ****法兰制造有限公司
工件名称： 不锈钢法兰（盲板）
被加工材料： 304L
加工设备： CSK50A
使用刀片： CNMG120412-MF/OP1215
对比刀片： 某知名厂家
冷却方式： 冷却液
加工内容： 粗车端面
加工参数： Vc= 180 m/min， Fn= 0.28 mm/r，Ap= 2.2 mm

Stainless steel flange

Customer： XX Company
Workpiece： Stainless steel flange(no hole)
Workpiece material： 304L
Lathe type： CSK50A
OKE insert： CNMG120412-MF/OP1215
Compare insert： A well-known manufacturer
Cooling type： Fluid cooling
Processing content： End face rough turning
Cutting parameter： Vc= 180 m/min，Fn= 0.28 mm/r，Ap= 2.2 mm

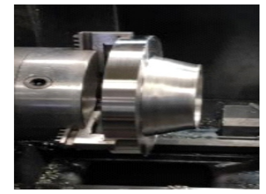
客户名称： ****机械制造有限公司
工件名称： 法兰盘
被加工材料： SUS304
加工设备： HTC1635i
使用刀片： WNMG060412-MSF/OP1315
对比刀片： 某知名厂家
冷却方式： 冷却液
加工内容： 精加工端面
加工参数： Vc= 200 m/min， Fn= 0.28 mm/r，Ap= 0.6 mm

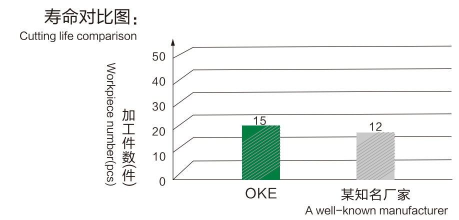
Stainless steel flange

Customer： XX Company
Workpiece： Flange
Workpiece material： SUS304
Lathe type： HTC1635i
OKE insert： WNMG060412-MSF/OP1315
Compare insert： A well-known manufacturer
Cooling type： Fluid cooling
Processing content： End face fine finishing
Cutting parameter： Vc= 200 m/min，Fn= 0.28 mm/r，Ap= 0.6 mm

A
B
C
D/4

不锈钢加工案例
Stainless sted cutting application cases



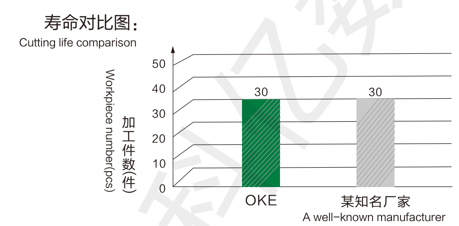


客户名称： ****机械股份有限公司
工件名称： 高颈法兰
被加工材料： SUS304L
加工设备： HTC1635i
使用刀片： WNMG060412-OMM/OP1215
对比刀片： 某知名厂家
冷却方式： 冷却液
加工内容： 锥度、端面(半精加工)
加工参数： Vc= 160 m/min， Fn= 0.18 mm/r，Ap= 1.5 mm

Stainless steel flange

Customer： XX Company
Workpiece： Hubbed flange
Workpiece material： SUS304L
Lathe type： HTC1635i
OKE insert： WNMG060412-OMM/OP1215
Compare insert： A well-known manufacturer
Cooling type： Fluid cooling
Processing content： Taper、end face(semi-finishing)
Cutting parameter： Vc= 160 m/min，Fn= 0.18 mm/r，Ap= 1.5 mm





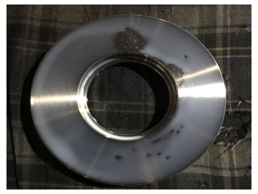
客户名称： ***机械厂
工件名称： 法兰盘
被加工材料： 45#锻件
加工设备： 数控车床
使用刀片： WNMG080412-OMM/OP1215
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 端面车削
加工参数： Vc= 258m/min， Fn= 0.2mm/r，Ap=1.25mm

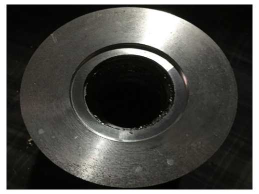
Stainless steel flange

Customer： XX Company
Workpiece： Flange
Workpiece material： 45#Forge piece
Lathe type： CNC lathe
OKE insert： WNMG080412-OMM/OP1215
Compare insert： A well-known manufacturer
Cooling type： No
Processing content： End face turning
Cutting parameter： Vc= 258 m/min， Fn= 0.2 mm/r，Ap= 1.25 mm

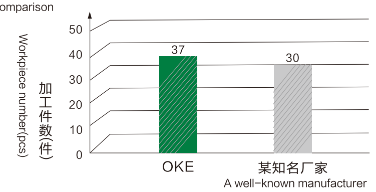
不锈钢加工案例

Stainless sted cutting application cases





寿命对比图：
Cutting life comparison



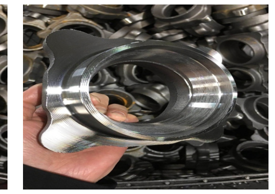
客户名称： ***加工厂
工件名称： 法兰盘
被加工材料： SUS316
加工设备： 数控车床
使用刀片： WNMG060412-MF/OC4315
对比刀片： 某知名厂家
冷却方式： 水冷
加工内容： 端面粗车、去黑皮
加工参数： Vc= 200 m/min， Fn= 0.28-0.33 mm/r，Ap= 0.2-0.8 mm

Stainless steel flange

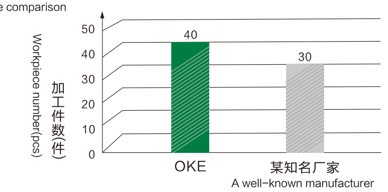
Customer: XX Company
Workpiece: Flange
Workpiece material: SUS316
Lathe type: CNC lathe
OKE insert: WNMG060412-MF/OC4315
Compare insert: A well-known manufacturer
Cooling type: Cooling liquid
Processing content: End face rough turning, remove black skin
Cutting parameter: Vc= 200 m/min，Fn= 0.28-0.33 mm/r，Ap= 0.2-0.8 mm

钢件加工案例

Steel cutting application cases



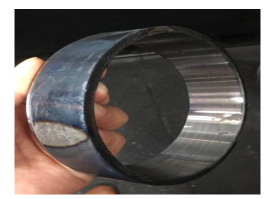
寿命对比图：
Cutting life comparison

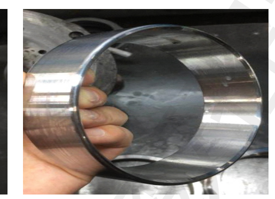


客户名称： ****制造有限公司
工件名称： 轮毂轴承单元（外圈）
被加工材料： 55#锻钢
加工设备： CY-K800H
使用刀片： WNMG080412-OPM/OC2125
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 粗车端面、外圆
加工参数： Vc= 260 m/min， Fn= 0.28 mm/r，Ap= 1.3 mm

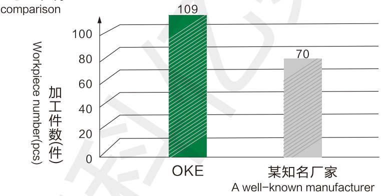
Steel

Customer: XX Company
Workpiece: Hub Bearing
Workpiece material: 55# forge steel
Lathe type: CY-K800H
OKE insert: WNMG080412-OPM/OC2125
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: End face and external rough turning
Cutting parameter: Vc=260 m/min， Fn= 0.28 mm/r，Ap= 1.3 mm





寿命对比图：
Cutting life comparison

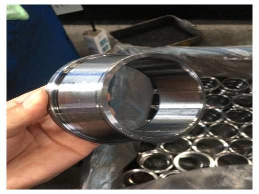


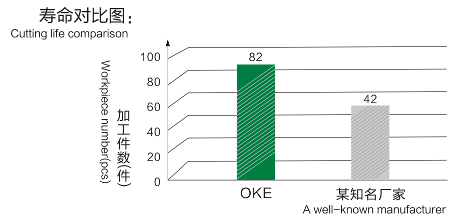
客户名称： 杭州****机械有限公司
工件名称： 轴承外圈
被加工材料： GCr15
加工设备： SK50P
使用刀片： WNMG080412-Z/OC3215+625
对比刀片： 某知名厂家
冷却方式： 冷却液
加工内容： 半精车外圆
加工参数： Vc= 393 m/min， Fn= 0.176 mm/r，Ap= 1.0 mm

Steel

Customer: XX Company
Workpiece: Outer bearing
Workpiece material: Gcr15
Lathe type: SK50P
OKE insert: WNMG080412-Z/OC3215+625
Compare insert: A well-known manufacturer
Cooling type: Fluid cooling
Processing content: External semi-finishing turning
Cutting parameter: Vc= 393 m/min， Fn= 0.176 mm/r，Ap= 1.0 mm

钢件加工案例
Steel cutting application cases

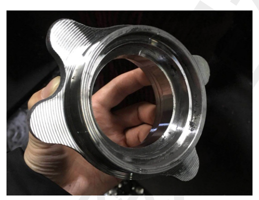



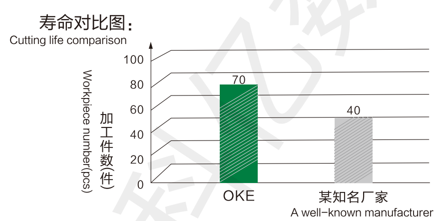


客户名称： 杭州****机械有限公司
工件名称： 轴承外圈
被加工材料： GCr15
加工设备： SK50P
使用刀片： WNMG080408-Z/OC3215+625
对比刀片： 某知名厂家
冷却方式： 冷却液
加工内容： 精车外圆
加工参数： Vc= 340 m/min， Fn= 0.18 mm/r，Ap= 0.5 mm

Steel

Customer: XX Company
Workpiece: Outer bearing
Workpiece material: Gcr15
Lathe type: SK50P
OKE insert: WNMG080408-Z/OC3215+625
Compare insert: A well-known manufacturer
Cooling type: Fluid cooling
Processing content: External finishing turning
Cutting parameter: Vc= 340 m/min， Fn= 0.18 mm/r，Ap= 0.5 mm

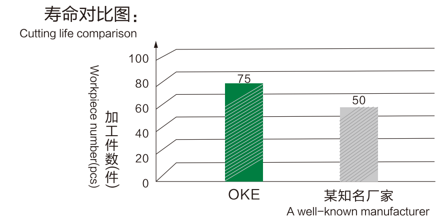


客户名称： 杭州***机械有限公司
工件名称： 轴承外圈
被加工材料： 65#锻钢
加工设备： 卧式数控车床
使用刀片： WNMG080412-OPM/OC2125
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 端面、外圆加工
加工参数： Vc= 160-220 m/min， Fn= 0.2-0.28 mm/r，Ap= 1.0 mm

Steel

Customer: XX Company
Workpiece: Outer bearing
Workpiece material: 65# forge steel
Lathe type: Horizontal CNC lathe
OKE insert: WNMG080412-OPM/OC2125
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: End face、and external
Cutting parameter: Vc= 160-220 m/min， Fn= 0.2-0.28 mm/r，Ap= 1.0 mm

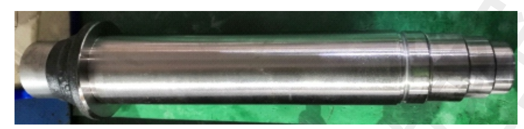
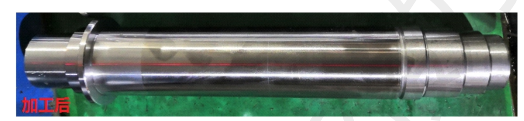
钢件加工案例
Steel cutting application cases

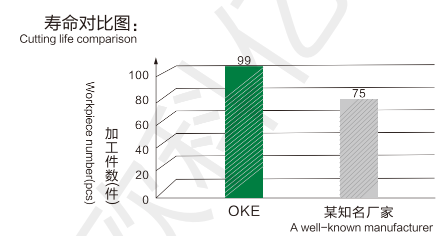


客户名称： 杭州***机械厂
工件名称： 十字轴
被加工材料： 55#锻钢
加工设备： 卧式数控车床
使用刀片： WNMG080408-OPM/OC2125
对比刀片： 某知名厂家
冷却方式： 乳化液
加工内容： 端面、外圆加工
加工参数： Vc= 79 m/min， Fn= 0.4 mm/r，Ap= 1.25 mm

Steel

Customer: XX Company
Workpiece: Cross bearing
Workpiece material: 55# forge steel
Lathe type: Horizontal CNC lathe
OKE insert: WNMG080408-OPM/OC2125
Compare insert: A well-known manufacturer
Cooling type: Emulsion fluid cooling
Processing content: End face、and external
Cutting parameter: Vc= 79 m/min， Fn= 0.4 mm/r，Ap= 1.25 mm



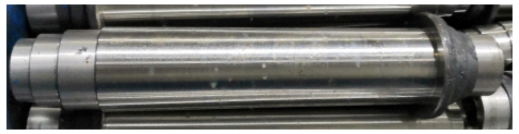
客户名称： 广州***公司
工件名称： 转轴组件
被加工材料： 20CrMoH
加工设备： 卧式数控车床
使用刀片： TNMG160408-OPR/OC2115
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 粗车外圆
加工参数： Vc= 138-218 m/min， Fn= 0.24-0.36 mm/r，Ap= 1 mm

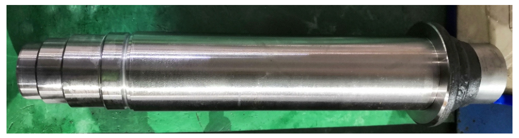
Steel

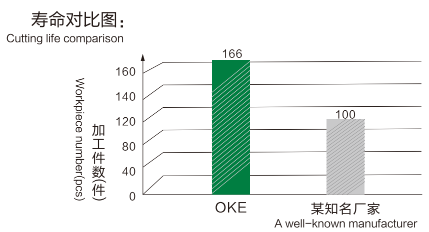
Customer: XX Company
Workpiece: Spindle
Workpiece material: 20CrMoH
Lathe type: Horizontal CNC lathe
OKE insert: TNMG160408-OPR/OC2115
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: External roughing turning
Cutting parameter: Vc= 138-218 m/min， Fn= 0.24-0.36 mm/r，Ap= 1 mm

钢件加工案例

Steel cutting application cases



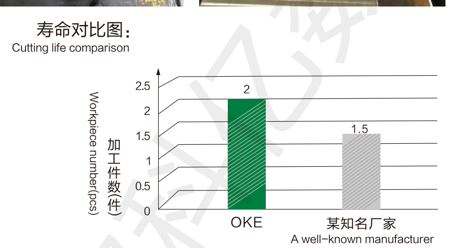




客户名称： 广州***公司
工件名称： 转轴组件
被加工材料： 20CrMoH
加工设备： 卧式数控车床
使用刀片： VNMG160404-OPF/OC2115
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 精车外圆
加工参数： Vc= 132-181 m/min， Fn= 0.12-0.24 mm/r，Ap= 0.5 mm

Steel

Customer: XX Company
Workpiece: Spindle
Workpiece material: 20CrMoH
Lathe type: Horizontal CNC lathe
OKE insert: VNMG160404-OPF/OC2115
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: External roughing turning
Cutting parameter: Vc= 132-181 m/min， Fn= 0.12-0.24 mm/r，Ap= 0.5 mm



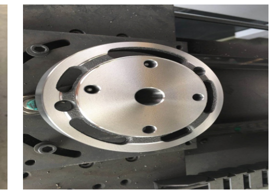
客户名称： 西安***机械有限公司
工件名称： 外缸筒
被加工材料： 30CrMnSi
加工设备： 卧式数车
使用刀片： CNMG160608-OPM/OC2125
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 粗车外圆
加工参数： Vc= 138 m/min， Fn= 0.4 mm/r，Ap= 3 mm

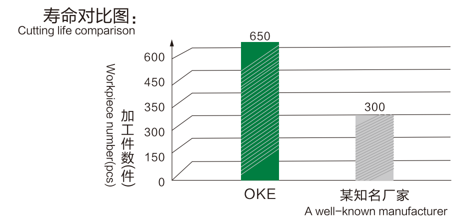
Steel

Customer: XX Company
Workpiece: The outer cylinder
Workpiece material: 30CrMnSi
Lathe type: Horizontal CNC lathe
OKE insert: CNMG160608-OPM/OC2125
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: External roughing turning
Cutting parameter: Vc= 138 m/min， Fn= 0.4 mm/r，Ap= 3 mm

铸铁加工案例

Cast iron cutting application cases

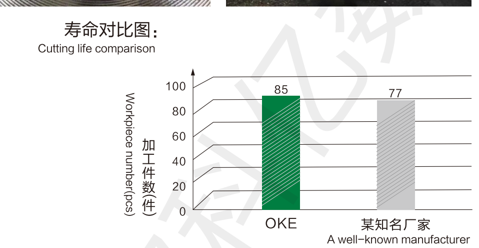




客户名称： ****金属制品厂
工件名称： 空调压缩机法兰
被加工材料： HT250
加工设备： SK50P
使用刀片： WNMG080412/OC3215
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 粗车外圆端面
加工参数： Vc= 550 m/min， Fn= 0.35 mm/r，Ap= 1.2 mm

Cast iron

Customer: XX Company
Workpiece: Air Compressor Flange
Workpiece material: HT250
Lathe type: SK50P
OKE insert: WNMG080412/OC3215
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: External end face roughing turning
Cutting parameter: Vc= 550 m/min， Fn= 0.35 mm/r，Ap= 1.2 mm



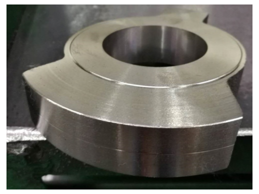
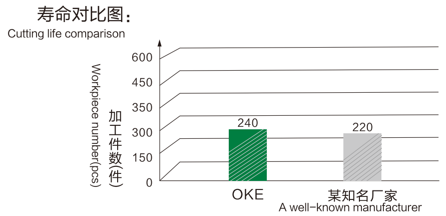
客户名称： 山东****机械配件有限公司
工件名称： 刹车盘
被加工材料： G3000
加工设备： i5T3
使用刀片： TNMG220416-GH/OC3215
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 半精车端面
加工参数： Vc= 706 m/min， Fn= 0.32 mm/r，Ap= 1.0 mm

Cast iron

Customer: XX Company
Workpiece: Brake disc
Workpiece material: G3000
Lathe type: i5T3
OKE insert: TNMG220416-GH/OC3215
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: End face semi-finishing turning
Cutting parameter: Vc= 706 m/min， Fn= 0.32 mm/r，Ap= 1.0 mm

铸铁加工案例

Cast iron cutting application cases

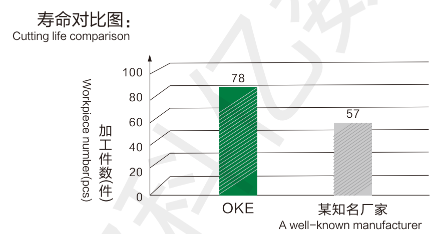




客户名称： 东莞***机械公司
工件名称： 空调压缩机法兰
被加工材料： HT250
加工设备： 卧式数控车床
使用刀片： WNMG080412/OC3215
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 外圆端面
加工参数： Vc= 356 m/min， Fn= 0.28 mm/r，Ap= 1 mm

Cast iron

Customer: XX Company
Workpiece: Air compressor flange
Workpiece material: HT250
Lathe type: Horizontal CNC lathe
OKE insert: WNMG080412/OC3215
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: External end face turning
Cutting parameter: Vc= 356 m/min， Fn= 0.28 mm/r，Ap= 1 mm





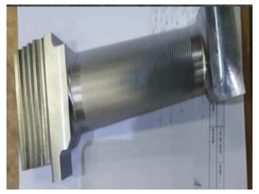
客户名称： 陕西***制造有限公司
工件名称： 制动毂
被加工材料： HT250
加工设备： 卧式数控车床
使用刀片： WNMG080408/OC3215
对比刀片： 某知名厂家
冷却方式： 无
加工内容： 端面、外圆粗加工
加工参数： Vc= 230–290 m/min， Fn= 0.3–0.45 mm/r，Ap= 2–3 mm

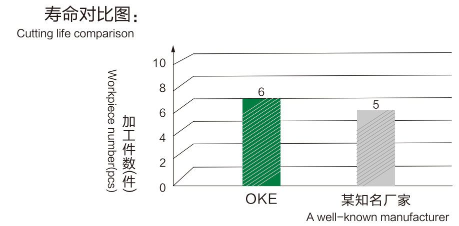
Cast iron

Customer: XX Company
Workpiece: Brake disc
Workpiece material: HT250
Lathe type: Horizontal CNC lathe
OKE insert: WNMG080408/OC3215
Compare insert: A well-known manufacturer
Cooling type: No
Processing content: Endface and external rough turning
Cutting parameter: Vc= 230–290 m/min， Fn= 0.3–0.45 mm/r，Ap= 2–3 mm

铣削加工案例

Milling cutting application cases



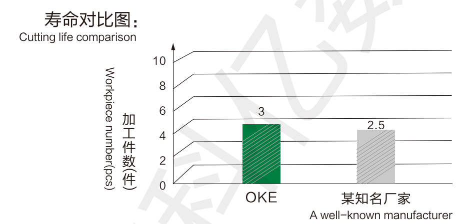


客户名称： ****机械制造有限公司
工件名称： 中压缸第四级动/锁叶片
被加工材料： 22Cr12NiWMoV–5
加工设备： HSTM–500–HD
使用刀片： APKT170516R–QG/OP1312
对比刀片： 某知名厂家
冷却方式： 冷却液
加工内容： 铣型面
加工参数： Vc= 241 m/min， Vf= 3500 mm/min，
Ap= 1.2 mm，Ae= 16 mm

Milling

Customer: XX Company
Workpiece: Cyliner/Locking vane
Workpiece material: 22Cr12NiWMoV–5
Lathe type: HSTM–500–HD
OKE insert: APKT170516R–QG/OP1312
Compare insert: A well-known manufacturer
Cooling type: Fluid cooling
Processing content: Profile Milling
Cutting parameter: Vc= 241 m/min， Vf= 3500 mm/min，
Ap= 1.2 mm，Ae= 16 mm



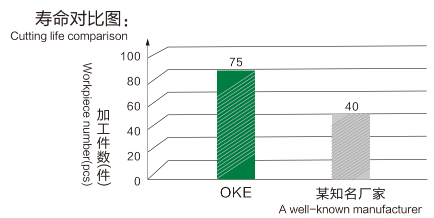


客户名称： 陕西****机电设备有限公司
工件名称： 万向接头
被加工材料： 30CrMnSiNi2A
加工设备： VL850
使用刀片： APMT1135PDER–M2/OP1130
对比刀片： 某知名厂家
冷却方式： 冷却液
加工内容： 精铣平面及外轮廓
加工参数： Vc= 120 m/min， Vf= 3500 mm/min，
Ap= 0.18 mm，Ae= 2 mm

Milling

Customer: XX Company
Workpiece: Gimbal Joint
Workpiece material: 30CrMnSiNi2A
Lathe type: Vl850
OKE insert: APMT1135PDER–M2/OP1130
Compare insert: A well-known manufacturer
Cooling type: Fluid cooling
Processing content: Finishing face milling and profile milling
Cutting parameter: Vc= 120 m/min，Vf= 3500 mm/min，
Ap= 0.18 mm，Ae= 2 mm

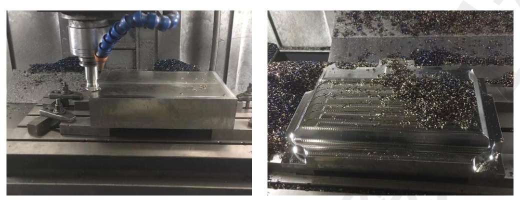
铣削加工案例
Milling cutting application cases

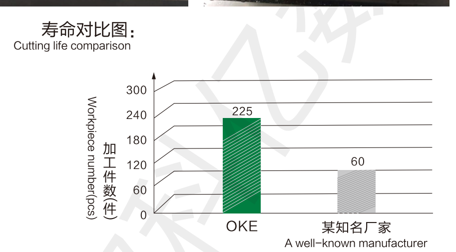


客户名称： ***模具厂
工件名称： 侧板模具
被加工材料： 45#
加工设备： 数控龙门铣
使用刀片： APMT1604PDER-H2L/OP1215
对比刀片： 某知名厂家
冷却方式： 压缩空气
加工内容： U型槽、方槽加工及切断
加工参数： Vc= 94 m/min，Fn= 1.04 mm/r，Ap= 0.3-0.35 mm

Milling

Customer: XX Company
Workpiece: Side panel mold
Workpiece material: 45#
Lathe type: CNC gantry milling
OKE insert: APMT1604PDER-H2L/OP1215
Compare insert: A well-known manufacturer
Cooling type: Comressed air
Processing content: U-groove, square groove machining, parting
Cutting parameter: Vc= 94 m/min，Fn= 1.04 mm/r，Ap= 0.3-0.35 mm



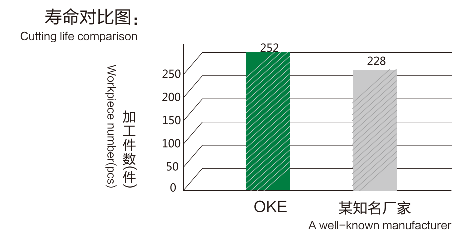


客户名称： ***模具厂
工件名称： 侧板模具
被加工材料： 45#
加工设备： 数控龙门铣
使用刀片： RPMT1204MO-JSL/OP1315
对比刀片： 某知名厂家
冷却方式： 压缩空气
加工内容： U型槽、方槽加工及切断
加工参数： Vc= 138 m/min，Fn= 0.96 mm/r，Ap= 0.45 mm

Milling

Customer: XX Company
Workpiece: Side panel mold
Workpiece material: 45#
Lathe type: CNC gantry milling
OKE insert: RPMT1204MO-JSL/OP1315
Compare insert: A well-known manufacturer
Cooling type: Comressed air
Processing content: U-groove, square groove machining, parting
Cutting parameter: Vc= 138 m/min，Fn= 0.96 mm/r，Ap= 0.45 mm

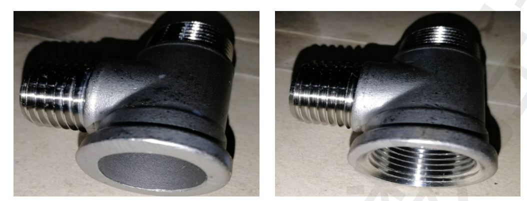
螺纹加工案例
Thread cutting application cases

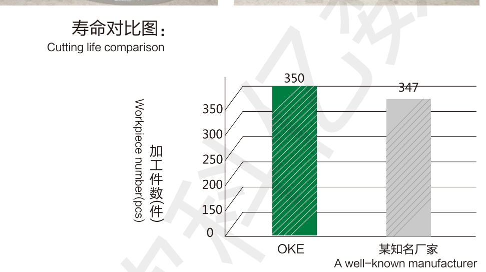


客户名称： **阀门有限公司
工件名称： 接头
加工行业： 阀门
被加工材料： SUS201
加工设备： 温州东海数控
使用刀片： RT1601L-11WA/OP1205
对比刀片： 某知名厂家
加工内容： 内螺纹车削
换刀标准： 刀片磨损
切 削 液： 有
加工参数： Vc=75-83m/min Fn=2.309mm/r

Thread

Customer: XX Company
Workpiece: Joint
Processing industry: Valve
Workpiece material: SUS201
Lathe type: Wenzhou Eastsea CNC
OKE insert: RT1601L-11WA/OP1205
Compare insert: A well-known manufacturer
Processing content: Internal threading turning
criterion of changing tool: Insert wear
Cutting fluid: Yes
Cutting parameter: Vc=75-83m/min Fn=2.309mm/r





客户名称： **阀门有限公司
工件名称： 弯头
加工行业： 阀门
被加工材料： 304
加工设备： KND
使用刀片： RT1601L-14WA/OP1205
对比刀片： 某知名厂家
加工内容： 内螺纹车削
换刀标准： 刀片磨损
切 削 液： 有
加工参数： Vc=58～65m/min Fn=1.814mm/r

Thread

Customer: XX Company
Workpiece: Bent
Machining Industry: Valve
Workpiece material: 304
Lathe type: KND
OKE insert: RT1601L-14WA/OP1205
Compare insert: A well-known manufacturer
Processing content: Internal threading turning
criterion of changing tool: Insert wear
Cutting fluid: Yes
Cutting parameter: Vc=58～65m/min Fn=1.814mm/r

D-5 技术信息
TECHNICAL INFORMATION

通用技术信息
General Technical Guide

刀具规格选用办法
Selection Method of Cutting Tools

普通车削刀具规格选用办法:

一、首先要了解您所需加工的材料状况，机床型号及状态。
二、选择适合的刀片形状，切削主偏角及刀片压紧方式。
三、依据以上因素及您的机床型号来确定刀杆的左右方向及尺寸等明细。
四、最后确定与以上各因素相应的刀片规格、槽型、牌号。

Selection Method of General Turning Tools:

1.Understand the processed material condition,Machine Model and condition.
2.Select the suitable insert shape,setting angle and clamoin designation.
3.According to above conditions select details of tools as L/R,demension,etc.
4.Select the type,chip break and grade of insert according to all conditions.

切断切槽刀具规格选用办法:

一、首先要了解您所需加工的材料状况，机床型号及状态。
二、根据加工方式（外圆、内孔、端面槽）确定切刀的基本类型。
三、依据以上因素及您的机床型号来确定刀杆的左右方向及尺寸等明细。
四、最后确定与以上各因素相应的刀片规格、定位方式、槽型、牌号等明细

Selection Method of Parting and Grooving tools:

1.Understand the processed material condition,Machine Model and condition.
2.Select the basic type according to processing methods(external,internal,face grooving)
3.According to above conditions select details of tools as L/R，demensions,etc.
4.Select the type,clamping designation,chip break and grade of insert according to all conditions

螺纹切削刀具规格选用办法:

一、首先要了解您所需加工的材料状况、机床型号及状态。
二、根据螺纹的制式、类型、加工方式初步确定刀具的类型。
三、依据以上因素及您的机床型号来确定刀杆的左右方向及尺寸等明细。
四、最后确定与以上各因素相应的刀片规格、槽型、牌号。

Selection Method of Threading Tools:

1.Understand the processed material condition,Machine Model and condition.
2.Select the tool type according to thread's type,processing methods,etc.
3.According to above conditions select details of cutting tools as L/R,demension,etc.
4.Select the type,chip break and grade of Insert according to all condition

刀具规格选用办法

Selection Method of Cutting Tools

铣削刀具规格选用办法:

一、首先要了解您所需加工的材料状况，机床型号及状态。
二、根据加工方式来确定铣削刀具的基本类型（平面铣削、方肩铣、仿形铣、铣槽、倒角铣等）。
三、根据加工精度及加工面形状与尺寸等因素确定采用整体铣刀或可转位铣刀。
四、依据以上因素及您的机床型号来确定刀具的接口、尺寸等明细。
五、最后确定与以上各因素相应的刀片规格、槽型、牌号。

Selection of milling tool specifications:

1. The first step is to understand the material condition, machine type and state you need to process.
2. Determine the basic type of milling tool according to the processing method(plane milling, Square shoulder milling, imitation milling, milling slot, corner milling, etc.).
3. According to the machining precision and the shape and size of the machining surface and other factors to determine the use of the overall milling cutter or transposable milling cutter.
4. According to the above factors and your machine model to determine the interface, dimensions and other details of the tool.
5. Finally determine the blade specification, groove type, and brand number corresponding to the above factors.

孔加工刀具规格选用办法:

一、首先要了解您所需加工的材料状况、机床型号及状态。
二、根据加工工艺来确定孔加工刀具的基本类型（钻削、镗销、铰削、螺纹加工、等方式）。
三、根据加工精度及加工孔的尺寸等因素确定采用整体刀具或可转位孔加工刀具。
四、依据以上因素及您的机床型号来确定刀具的接口、尺寸等明细。
五、最后确定与以上各因素相应的刀片规格、槽型、牌号。

Selection Method for Hole Processing Tool Specifications:

1. Understand the material condition, machine type and state you need to process.
2. Determine the basic types of hole cutting tools(drilling, boring, hinge, thread processing, etc.) according to the processing process.
3. According to the machining accuracy and the dimension of the machining hole, it is determined that the whole tool or the fork-turning tool is used.
4. According to the above factors and your machine model to determine the interface, dimensions and other details of the tool.
5. Finally determine the insert specification, groove type, and brand number corresponding to the above factors.

材料硬度与切削速度的修正系数表

The Correction Coefficient Table Of Hardness And Cutting Speed

工件材料 Material		理论硬度 Theoretical Hardness	材料硬度与切削速度的修正系数 The Correction Coefficient Table Of Hardness And Cutting Speed								
			硬度降低 Hardness Decrease		硬度差值（实测值—理论值） Hardness Difference(Measured Difference – Theoretical Difference)					硬度增大 Hardness Increase	
			-60	-40	-20	0	20	40	60	80	100
P		HB180	1.42	1.24	1.11	1.00	0.91	0.84	0.77	0.72	0.67
M		HB180	1.44	1.25	1.11	1.00	0.91	0.84	0.78	0.73	0.68
K	灰口铸铁 Grey Cast Iron	HB220	1.21	1.13	1.06	1.00	0.95	0.9	0.86	0.82	0.79
K	球墨铸铁 Nodular Cast Iron	HB250	1.33	1.21	1.09	1.00	0.91	0.84	0.75	0.7	0.65
N		HB75			1.05	1.00	0.95				
S		HB350			1.12	1.00	0.89				
HRC				-6	-3	0.00	3	6	9		
H		HRC60		1.10	1.02	1.00	0.96	0.93	0.9		

实际加工速度=推荐加工速度X切削速度修正系数
Actual Processing Speed=Recommended Processing Speed*Correction Factor Of Cutting Speed

推荐的切削参数见刀片包装盒 Recommended Cutting Parameters See Packaging

表格使用举例：当您要加工的材料为普通的合金钢，理论硬度为HB180，选择的刀片为CNMG120404-OPF/OC2015时，推荐切削速度：V=250m/min。如果实测硬度值为HB220，则硬度差值为220-180=40，对照上表查到速度修正系数0.84，则实际加工速度Vc=250x0.84=210m/min。

i.e. Cutting general alloy steel, hardness HB180, CNMG120404-OPF/OC2015, the recommended cutting speed is V=250m/min. When measured hardness is HB220, the hardness difference is 40(220-180). Find The corresponding speed correction coefficient is 0.84 on above table, and then the actual processing speed Vc=250*0.84=210mm/min

刀具寿命与切削速度的修正系数表

The Correction Coefficient Table Of Insert Life And Cutting Speed

刀具寿命 Insert Life / 刀片材质 Insert Material	刀具寿命和切削速度的修正系数 The Correction Coefficient Table Of Insert Life And Cutting Speed					
	10	15	30	45	60	90
OC2015	1.12	1.00	0.82	0.73	0.67	0.6
OC2025	1.11	1.00	0.84	0.76	0.71	0.64
OC2035	1.11	1.00	0.84	0.76	0.70	0.63
OC2115	1.25	1.00	0.68	0.54	0.46	0.37
OC2125	1.55	1.00	0.47	0.30	0.22	0.14
OP1205	1.15	1.00	0.82	0.74	0.69	0.64
OP1215	1.10	1.00	0.85	0.72	0.65	0.62
OP1030	1.10	1.00	0.85	0.72	0.65	0.62
OC4025	1.19	1.00	0.75	0.63	0.56	0.47
OC4315	1.22	1.00	0.73	0.61	0.54	0.45
OC3105	1.11	1.00	0.70	0.60	0.50	0.40
OC3215	1.22	1.00	0.80	0.65	0.60	0.55
OC3115D	1.25	1.00	0.72	0.63	0.52	0.41
OP2202	1.20	1.00	0.84	0.70	0.63	0.59

实际加工速度=推荐加工速度X切削速度修正系数

Actual Processing Speed=Recommended Processing Speed*Correction Factor Of Cutting Speed

表格使用举例：当您要加工的材料为普通的合金钢，选择的刀片为CNMG120404-OPF/OC2015，推荐切削速度（标准寿命15分钟）为：V=250m/min。如果 期望刀具寿命为60分钟，对照表查到速度修正系数0.67□则实际加工速度是Vc=250x0.67=167.5m/min。

i.e. Cutting general alloy steel, CNMG120404-OPF/OC2015, the recommended cutting speed is V=250m/min (the standard life is 15 min). If the insert life of 60 mins is expected, find the speed correction coefficient is 0.67 on above table, and then the actual processing speed is Vc=250*0.67=167.5m/min.

车削刀片断屑槽选择对照表

Comparison Table for Turning Insert Chipbreaker

负角刀片 Negative Inserts

ISO	加工范畴 Processing Category	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMTOMO	三菱 MISTUBISHI
P	超精加工 Superfinishing	R/L-F		UF,FF	FE		QF,LC	01&TF,ZF	DP,GP,VF XF,CF,XP XP-T	HU	FA,FL	PK&FH FY,F,FS
	精加工 Finishing	OPF	FG,FA	LF，FN	BE，CE BH	DF	XF,PF,MF	TSF,AS NS,27	HQ,CQ,CJ PQ,VF,GP	HF	SU,LU,SX SP,FP,FA FL,SE,ST C	C,SA, SH ,LP
	精加工(软刚) Finishing(Soft Steel)	OPF			Y,V	SF	WL	17,TS,NS,CB 11，27，ZF	XQ,XS	HF	EX,SK,SJ SX,UU,UJ	SY
	精加工(修光刃) Finishing(Wiper)		WS,EA, WT,MG	FW,MW RW		WG	WP,WF WM,WMX	AFW,ASW	WP,WQ	HW	LUW,SEW GUW	SW,MW
	半精加工 Semifinishing	OPM -Z	ML,ET,MP MC,SM, MT	MN,P MG	AB,AY AR,AH CT	DM,PM	PM,QM SM,XM	TM,DM,ZM,NM 33,38,37,TH 32Y,32，37	CJ,GS,HK PS,HS,PT CS	HC,HM HA	GU,UG,UX GE,UA,UM	MV,MP,MZ MA,MH
	轻载粗 Light Roughing	OPR		RN,RP MG	RE	DR(双面）	PR,HM XMR		GT,HT		MU,MX UX,UZ	GH,RP
	粗加工 Roughing	OPR OPH	RT RH,HT	MR,RMn RH,PR MG	HX,HE H	DR(单面) HDR	QR,MR PR,HR 23	57,65,TU 31,33,F-K THS	HX,PX PH	HR,HH	MP,HG,HP MC,MU,MX UZ	HZ,HX,HV HZ,HXD,HA HAS,HBS,HCS HDS,HXD

车削刀片断屑槽选择对照表

Comparison Table for Turning Insert Chipbreaker

负角刀片 Negative Inserts

ISO	加工范畴 Processing Category	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMTOMO	三菱 MISTUBISHI
M	精加工 Finishing	OMF MSF	FG,SF	K，FP	MP,SE	EF	MF	SS	GU,MQ	HA	SU	FS,SH FJ,LM
M	半精加工 Semifinishing	OMM MF	ML,MP EM,VF	P，MP	PV,DE,AH	EM	MM,K	SA,SMS,SF	SU,HU MU,MS ST,TK	HS	EX,UP,MU HM,GU	MS ES,MA MJ,MH,GM MM,ES 2G
M	粗加工 Roughing	OMR	MT,RH	UP,RP		ER	MR	TH,SH		GS,HM	MP,MU HP,HG	GH,HZ,RM
K	精加工 Finishing	通槽	FG	FN	VA,AH	PM	KF	Y,CF		无断屑槽 Without chipbreaker	UZ	全周,MA Through chipbreaker
K	半精加工 Semifinishing	通槽 Without chipbreaker	MC,MT MG	全周,P,UN UM,RP Through chipbreaker	Y,V	PM	KM	全周,CF,CM,33 Through chipbreaker	ZS,C,全周 Through chipbreaker	全周槽 Through chipbreaker HM	UX,GZ UX,UJ	全周 Through chipbreaker
K	粗加工 Roughing	无断屑槽 Without chipbreaker	RH,RT	UN,MG		无断屑槽 Without chipbreaker	KR	CH	无断屑槽,GC Without chipbreaker	HR,GH GR	无断屑槽 UZ，MU，MM	无断屑槽 Without chipbreaker
S	精加工 Finishing	OSF	SF	FS,K		NF	SF,SGF		MQ		EF	FJ&
S	半精加工 Semifinishing	OSM		NGP,UP P		NM	NGP,23 SM	SA,HMM	MS,MU,YK		SU&EG,EX UP,FY,FX	MJ&MS
S	粗加工 Roughing	OSM		MS			SR,SMR	SM	SU			GJ

车削刀片断屑槽选择对照表

Comparison Table for Turning Insert Chipbreaker

正角刀片 Positive Inserts

ISO	加工范畴 Processing Category	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMTOMO	三菱 MISTUBISHI
P	精加工 Finishing	OTF	FA,FG	11,UF GF,LF,FP	JQ	SF,HF	UF,PF	01,PF FS,JS	GP,CK,XP VF,CF,GQ GF	HFP	FP,LU, FC SU,SK,FK	FV,SV,FP SQ,SMG
P	精加工(修光刃) Finishing(Wiper)		WS	FW			WK&,W,WP		A,B,C,H,Y		LUW,SF,SU SS,FZ,US,W SDFX,FY	SW
P	半精加工 Semifinishing	OTM GM	MT,CMX	MF,MP	JE	HM	UM,WF,PM	PM,PS,PF PSF,PSS 23,24	HQ,XQ,GK	HMP,C25	MU,SC	MV,MQ,AM 全周,MP Through chipbreaker
P	粗加工 Roughing	OTR		GM,MR			WM,PR UR,KM		GP,DP		UJ,SU,RP	MW
M	精加工 Finishing	MSF,OTF	FA，FG	FW,MW FP	MP	EF	MF	SS&	CF,CK,GQ GF,DP	HFP	LU	SV,FV
M	半精加工 Semifinishing	OTM GM	MT,CMX	MP		EM	MM	PM	HQ,GK	HMP,C25		FM,MV，LM 全周 Through chipbreaker
K	半精加工 Semifinishing	OTR	MT,CMX			HR,无断屑槽 HM Without chipbreaker	KM,KR,KF	无断屑槽,CM CM Without chipbreaker	无断屑槽 Without chipbreaker	HMP,C25 HMP,C25	无断屑槽 Without chipbreaker	无断屑槽 Without chipbreaker
S	精加工 Finishing	OSF		LF,HP					MQ		SC	FJ
S	半精加工 Semifinishing	OSM										
N	通用切削 General cutting	NL	FL	HP		LH	AL	PP,AL	A3,AH	TA AK	AG,AW,FY	AZ

材料对照表

Material Comparison

钢 Steel

ISO	国家和标准Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
碳素钢材 Carbon Steel	15	1.0401	C15	1015	080M15		C15C16	F.111	1350	CC12	
	20	1.0402	C22	1020	050A20	2C	C20C21	F.112	1450	CC20	
	35	1.0501	C35	1035	060A35		C35	F.113	1550	CC35	
	45	1.0503	C45	1045	080M40		C45	F.114	1650	CC45	
	55	1.0535	C55	1055	070M55		C55		1655		
	60	1.0601	C60	1060	080A62	43D	C60			CC55	
	Y15	1.7015	9SMN28	1213	230M07		CF9SMn28	11SMn28	1912	S250	SUM22
锰钢钢材 Manganese Steel	40Mn	1.1157	40Mn4	1039	150M36	15				35M5	
	25	1.1158	Ck25	1025							S25C
	35Mn2	1.1167	36Mn5	1335				36Mn5	2120	40Mn5	SMn438(H)
	30Mn	1.117	28Mn6	1330	150M28	14A	C28Mn			20M5	SCMn1
	35Mn	1.1183	Cf35	1035	060A35		C36		1572	XS38TS	S35C
		1.0718	9SMnPb28	12L13			CF9MnPb28	11SMnPb28	1914	S250Pb	SUM22L
		1.0722	10SPb20				CF10Pb20	10SPb		10PbF2	
		1.0726	35S20	1140	212M36	8M		F210G	1957	35MF4	
	Y13	1.0736	9SMn36	1215	240M07	1B	CF9SMn36	12SMn35		S300	
		1.0737	9SMnPb36	12L14			CF9SMnPb36	12SMnPb35	1926	S300Pb	
	55Si2Mn	1.0904	55Si9	9255	250A53	45	55Si8	56Si7	2085	55S7	
		1.0961	60SiCr7	9262			60SiCr8	60SiCr8		60SC7	
	15	1.1141	Ck15	1015	080M15	32C	C16	C15K	1370	XC12	S15C
	Ck45	1.1191	45	1045	080M46		C45	C45K	1672	XC42	S45C
	55	1.1203	Ck55	1055	070M55		C50	C55K		XC45	S55C
	50	1.1213	Cf53	1050	060A52		C53		1674	XC48TS	S50C
	60Mn	1.1221	Ck60	1060	080A62	43D	C60		1678	XC60	S68C
		1.1274	Ck101	1095	060A96				1870		SUP4
		1.3401	X120Mn12		Z120M12		XG120Mn12	X120Mn12		X120M12	SCMnH/1
	Gr15,45Gr	1.3505	100Cr6	52100	534A99	31	100Cr6	F.131	2258	100C6	SUJ2
		1.5415	15Mo3	ASTMA204Gr,A	1501-240		16Mo3KW	16Mo3	2912	15D3	
		1.5426	16Mo5	4520	1503-245-420		16Mo5	16Mo5			
		1.5622	14Ni6	ASTMA350LF5			14Ni6	15Ni6		16N6	
		1.5662	X8Ni9	ASTM A353	1501-509:510		X10Ni9	XBNi09			

b

材料对照表

Material Comparison

钢 Steel

ISO	国家和标准Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
镍铬钢钢材 Nickel Chromiun Steel		1.5680	12Ni19	2515						Z18N5	
		1.5710	36NiCr6	3135	640A35	111A				35NC6	SNC236
		1.5732	14NiCr10	3415			16NiCr11	15NiCr11		14NC11	SNC415(H)
		1.5752	14NiCr14	3415，3310	655M13 655A12	36A				12NC15	SNC815(H)
镍铬钼钢钢材 Nickel Chromium Molybdenum Steel		1.6511	36CrNiMo4	9840	816M40	110	38CrNiMo4(KB)	35CrNiMo4		40NCD3	
		1.6523	21NiCrMo2	8620	850M20	362	20NiCrMo2	20NiCrMo2	2503	20NCD2	SNCCM220(H)
		1.6546	40NiCrMo2	8740	311-Type7		40NiCrMo2(KB)	40NiCrMo2			SNC240
	40CrNiMoA	1.6582	34CrNiMo6	4340	817M40	24	35CrNiMo6(KB)		2541	35NCD6	
		1.6587	17CrNiMo6		820A16			14CrNiMo13		18NCD6	
铬钢钢材 Chromium Steel	15Cr	1.7015	15Cr3	5015	523M15					12C3	SCr415(H)
	35Cr	1.7033	34Cr4	5132	530A32	18B	34Cr4(KB)	35Cr4		32C4	SCr430(H)
	40Cr	1.7035	41Cr4	5140	530M40	18	41Cr4	42Cr4		42C4	SCr440(H)
	40Cr	1.7045	42Cr4	5140				42Cr4	2245		SCr440
锰铬钢钢材 Manganese Steel	18CrMn	1.7131	16MnCr15	5115	527M20		16MnCr15	16MnCr15	2511	16MC5	
	20CrMn	1.7176	55Cr3	5155	527A60	48				55C3	SUP9(A)
	30CrMn	1.7218	25CrMo4	4130	1717CDS110		25CrMo4(KB)	55Cr3	2225	25CD4	SCM420; SCM430
	35CrMo	1.722	34CrMo4	4137，4135	708A37	19B	35CrMo4	34CrMo4	2234	35CD4	SCM432 SCRRM3
	40CrMoA	1.7223	41CrMo4	4140，4142	708M40	19A	41CrMo4	41CrMo4	2244	42CD4TS	SCM440
	42CrMo, 42CrMnMo	1.7225	42CrMo4	4140	708M40	19A	42CrMo4	42CrMo4	2244	42CD4	SCM440(H)
铬钼钢钢材 Chromium Steel		1.7262	15CrMo5					12CrMo4	2216	12CD4	SCM415(H)
		1.7335	13CrMo44	ASTM A182 F11 F12	1501-620Cr. 27		14CrMo44	14CrMo45		15CD3.5;15CD4.5	
		1.7361	32CrMo12		722M24	40B	32CrMo12	F.124.A	2240	30CD12	
		1.738	10CrMo910	ASTM A182 F22	1501-622Cr.31;45		12CrMo9,10	TU.H	2218	12CD9;10	
		1.7715	14MoV63		1503-660-440			13MoCrV6			
	50CrVA	1.8159	50CrV4	6150	735A50	47	50CrV4	51CrV4	2230	50CV4	SUP10
		1.8509	41CrAlMo7		905M39	41B	41CrAlMo7	41CrAlMo7	2940	40CAD6,12	
		1.8523	39CrMoV139		897M39	40C	36CrMoV12				

材料对照表

Material Comparison

钢 Steel

ISO	国家和标准Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
钢类Steel	T10	1.1545	C105W1	W.110			C98KU C100KU	F.515 F.516	1880	Y1105	
	T12A	1.1663	C125W	W.112			C120KU	(C120)		Y2120	SK2
	CrV,9SiCr	1.2067	100Cr6	L3	BL3			100Cr6		Y100C6	
	Cr12	1.208	X210Cr12	D3	BD3		X210Cr13KU X250Cr12KU	X210Cr12		Z200Cr12	SKD1
	4Cr5MoVSi	1.2344	X40CrMoV51	H13	BH13			X40CrMoV5	2242	Z40CDV5	SKD61
	Cr6WV	1.2363	X100CrMoV51	A2	BA2		X35CrMoV05KU X40CrMoV51KU	X100CrMoV5	2260	Z100CDV5	SKD12
	CrWMo	1.2419	105WCr6				X100CrMoV51KU	105WCr5	2140	105WC13	SKS31 SKS2 SKS3
	Cr12W	1.2436	X210CrW12				10WCr6 107WCr5KU	X210CrW12	2312		SKD2
	5CrNiMo	1.2542	45WCrV7	S1	BS1		X215CrW121KU	45WCrSi8	2710		
	3Cr2W8V	1.2581	X30WCrV93 X30WCrV93KU	H21	BH21		45WCrV8KU	X30WCrV9		Z30WCV9	SKD5
	Cr12MoV	1.2601	X165CrMoV12				X28W09KU X30WCrV93KU	X160CrMoV12	2310		SKD11
	5CrNiMo	1.2731	55NiCrMoV6	L6			X165CrMoW12KU	F.250.S		55NCDV7	SKT4
	V	1.2833	100V1	W210	BW2					Y1105V	SKS43
	W6Mo5Cr4V2Co5	1.3243	S6-5-2-5					HS6-5-2-5	2723	Z85WDKCV	SKH55
	W18Cr4VCo5	1.3255	S18-1-2-5	T4	BT4		HS6-5-2-5	HS18-1-1-5		Z80WKCV 10-05-04-1	SKH3
	W6Mo5Cr4V2	1.3343	S6-5-2S	M2	BM2		X78WCo1805KU	HS6-5-2	2722	Z85WDCV 06-05-04-02	SKH9
		1.3348	S2-9-2	M7		Z	X82WMo0605KU	HS-2-9-2	2782	Z100WCWV 09-02-04-02	
	W18Cr4V	1.3355	S18-0-1	T1	BT1		HS2-9-2	HS18-0-1		Z80WCV 18-04-01	SKH2
	W6Mo5Cr4V3		S6-5-3	M3			X75W18KU				SKH52
				M42	BM42						SKH59

材料对照表

Material Comparison

钢 Steel

ISO	国家和标准Nations And Standard					
	中国	德国		日本	大同(日本)	美国
	GB（P类）	W-nr	DIN	JIS	DAIDO	AISI/SAE
模型钢类 Die Steel	塑料模具钢					
					PX5N	P20mod
					NAK55	
					NAK80	
	3Cr13			SUS420J2mod	S-STAR	420mod
	冷作模具钢					
				SKS93	YK30	2
	9CrWMn			SKS3mod	GOA	01mod
	Cr12MoV		X165CrMoV12	SKD11	DC11	D2
				SKD11mod	DC53	D2mod
	热作模具钢					
	4Cr5MoSiV1		X40CrMoV51	SKD61	DHA1	H13
					DH21	
					DH31-S	
					DH2F	

材料对照表

Material Comparison

不锈钢 Stainless Steel

ISO	中国 GB（P类）	德国 W-nr	德国 DIN	美国 AISI/SAE	英国 BS	英国 EN	意大利 UNI	西班牙 UNE	瑞典 SS	法国 AFNOR	日本 JIS
不锈钢 Stainless Steel	0Cr13;1Cr12	1.4000	X6Cr13	403	403S17		X6Cr13	F.3110	2301	Z6C13	SUS403
		1.4001	X7Cr14					F.8401			
	1Cr13	1.4006	X10Cr13	410	410S21	56A	X12Cr13	F.3401	2302	Z10C14	SUS410
	1Cr17	1.4016	X6Cr17	430	430S15	60	X8Cr17	F.3113	220	Z8C17	SUS430
	2Cr13	1.4021	X20Cr13	410	S62	56B; 56C	X20C13	F.3401		Z20C13	SUS410
		1.4027	G-X20Cr14		420C29	56B				Z20C13M	SCS2
	4Cr13	1.4034	X46Cr13		420S45	56D	X40Cr14	F.3405	2304	Z40CM;Z38C13M	SUS420J2
	1Cr17Ni2	1.4057	X20CrNi172	431	431S29	57	X16CNi16	F.3427	2321	Z15CNi6.02	SUS431
	Y1Cr17	1.4104	X12CrMoS17	430F			X10CrS17	F.3117	2383	Z10CF17	SUS430F
	1Cr17Mo	1.4113	X6CrMo171	434	434S17		x8CrMo17		2325	Z8CD17.01	SUS434
		1.4313	X5CrNi134		425C11					Z4CND13.4M	SCS5
		1.4408	G-X6CrNiMo1810		316C16			F.8414			SCS14
	4Cr9Si2	1.4718	X45CrSi93	HW3	401S45	52	X45CrSi8	F.322		Z45CS9	SUH1
	0Cr13Al	1.4724	X10CrAl13	405	403S17		X10CrAl12	F.311		Z10C13	SUS405
	Cr17	1.4742	X10CrAl18	430	430S15	60	X8Cr17	F.3113		Z10CAS18	SUS430
	8Cr2OSi2Ni	1.4757	X80CrNiSi20	HNV6	443S65	59	X80CrSiNi20	F.320V		Z80CSN20.02	SUH4
	2Cr25N	1.4762	X10CrAl24	446			X16Cr26		2322	Z10CAS24	SUH446
不锈钢 Stainless Steel	0Cr18Ni9	1.4301	X5CrNi1810	304	304S15	58E	X5CrNi1810	F.3551 F.354 F.3504	2332	Z6CN18.09	SUS304
	1Cr18Ni9MoZr	1.4305	X10CrNiS189	303	303S21	58M	X10CrNiS18.09	F.3508	2346	Z10CNF18.09	SUS303
	0Cr19Ni10	1.4306	X2CrNi1911	304L	304S12		X2CrNi18.11	F.3503	2352	Z2CN18.10	SCS19
		1.4308	G-X6CrNi189		304C15					Z6CN18.10M	SCS13
	Cr17Ni7	1.4310	X12CrNi177	301			X12CrNi1707	F.3517	2331	Z12CN17.07	SUS301
		1.4311	X2CrNiN1810	304LN	304S62				2371	Z2CN18.10	SUS304LN
	0Cr19Ni9	1.4350	X5CrNi189	304	304S31	58E	X5CrNi1810			Z6CN18.09	SUS304
	0Cr17Ni11Mo2	1.4401	X5CrNiMo1712	316	316S16	Z6CND17.11	X5CrNiMo1712	F.3543	2347	1.4401	SUS316
	00Cr17Ni13Mo2	1.4429	X2CrNiMoN17133	316LN					2375	Z2CND17.13	SUS316LN
	0Cr27Ni12Mo3	1.4435	X2CrNiMo18143	316L	316S12		X2CrNiMo1713		2353	Z2CDN17.13	SCS16
	00Cr19Ni13Mo3	1.4438	X2CrNiMo17133	317L	317S12		X2CrNiMo18.16		2367	Z2CND19.15	SUS317L
		1.4460	X8CrNiMo275	329L					2324		SUS329L; SCH11 SCS11
	1Cr18Ni9Ti	1.4541	X6CrNiTi1810	321	2337	321S12	X6CrNiTi1811	F.3553	58B	Z6CNT18.10	SUS321
	1Cr18Ni11Nb	1.4550	X6CrNiNb1810	347	347S17	58F	X6CrNiTi1811	F.3552	2338	Z6CNNb18.1	SUS347
	Cr18Ni12Mo2Ti	1.4571	X6CrNiMoTi17122	316Ti	320S17	58J	X6CrNiMoTi17	F.3535	2350	Z6NDT17.12	
不锈钢 Stainless Steel		1.4581	G-X5CrNiMoNb1810		318C7		XG8CrNiMo18			Z4CNDNb1812M	SCS22
	Cr17Ni12Mo3Nb	1.4583	X10CrNiMoNb1812	318			X6CrNiMoTiNb17			Z6CNDNb1713B	
	1Cr23Ni13	1.4828	X15CrNiSi2012	309	309S24					Z15CNS20.1	SUH309
	0Cr25Ni20	1.4845	X12CrNi2521	310S	310S24		X6CrNi2520	F.331	2361	Z12CN2520	SUH310
	Cr15Ni36W3Ti	1.4864	X12NiCrSi3616	330						Z12CN35.1	SUH330
		1.4865	G-X40NiCrSi3818		330C11		XG50NiCr3919				SCH15
	5Cr2Mn9Ni4N	1.4871	X53CrMnNiN219	EV8	349S54;321S12	58B	X53CrMnNiN219			Z52CMN21.0	SUH35
	1Cr18Ni9Ti	1.4878	X12CrNiTi189	321	321S320	58C	X6CrNiTi1811	F.3523		Z6CNT18.12	Su321

材料对照表

Material Comparison

铸铁 Cast Iron

ISO	中国 GB（P类）	德国 W-nr	德国 DIN	美国 AISI/SAE	英国 BS	英国 EN	意大利 UNI	西班牙 UNE	瑞典 SS	法国 AFNOR	日本 JIS
球墨铸铁 Nodular Iron	QT400-18	GGG40		60-40-18	400/17		GS370-17	FGE38-17	0717-02	FGS370-17	FCD400
	QT450-10			65-45-12	420/12		GS400-13	FGE42-12		FGS400-12	FCD450
	QT500-7	GGG50		70-50-05	500/7		GS500-7	FGE50-7	0727-02	FGS500-7	FCD500
	QT600-3	GGG60		80-60-03	600/7		GS600-2	FGE60-2	0732-03	FGS600-2	FCD600
	QT700-2	GGG70		100-70-03	700/2		GS700-2	FGE70-2	0737-01	FGS700-2	FCD700
	QT800-2	GGG80		120-90-02	800/2		GS800-2	FGE80-2	0864-03	FGS800-2	FCD800
	QT900-2				900/2						
灰口铸铁 Grey Cast Iron		GG40		NO.60					0140	FGL400	FC350
	HT350	GG35		NO.50	350		G35	FG35	0135	FGL350	FC300
	HT300	GG30		NO.45	300		G30	FG30	0130	FGL300	FC250
	HT250	GG25		NO.35	250		G25	FG25	0125	FGL250	FC200
	HT200	GG20		NO.30	200		G20	FG20	0120	FGL200	FC150
	HT150	GG15		NO.20	150		G15	FG15	0115	FGL150	FC100
	Ht100				100		G10		0110		

牌号对照表

Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMTOMO	三菱 MISTUBISHI
CVD 车削 Turning	P01			KCP05 KC9105	HC5000 HG8010		GC4005 GC4205	T9005 T9105	CA5505		AC700G AC810P	UE6105
	P10	OC2015 OC2115	TT8115	KCP10 KCP25 KC9110	HG8010 HG8020 GM8015 GM10	YBC151 YBC152	GC4015 GC4215	T9005 T9105 T9115	CA5505 CA5515	NC3010 NC3015	AC810P AC820P	UE6105 UE6110 MY5015
	P20	OC2025 OC2125	TT5100 TT8125	KCP25 KC9125 KC9225	HG8025 GM8020 GM25	YBC251 YBC252	GC4015 GC4025 GC4225 GC2015	T9115 T9015 T9025 T9125	CA5515 CA5525 CA5025 CR9025	NC3020 NC3120	AC820P	UE6110 MC6025 UE6020 MY5015
	P30	OC2125 OC2035	TT8125 T5100	KCP30 KCP40 KC8050	GM8035 GM25	YBC252 YBC351	GC4025 GC4225 GC4035 GC2025 GC4235	T9025 T9035 T9135 T9125	CA5525 CA5535 CR9025	NC3030	AC630M AC830P	MC6020 UE6020 UE6035 US735
	P40	OC2035	TT8135 TT7100	KC9140 KC9040 KC9240 KX9245 TN7035 TPC35	GM8035 GX30	YBC151 YBC352	GC4035 GC235 GC4235	T9035 T9135	CA5535	NC500H	AC610M	UE6035 UH6400 US735
	M10	OC4015	TT9215	KCM15	GM10	YBM251 YBM153	GC2015	T9115 T9015	CA6515 CA6015		AC610M AC630M	US7020 MC7015
	M20	OC4025 OC4225 OC4315	TT9225	KCM15 KC9225	GM25G M8020	YBM251 YBM253	GC2015	T6020 T6130 T9025 T9125	CA6515 CA6525	NC9020 NC9025	AC630M AC830P	US7020 MC7015 MC7025
	M30	OC4035	TT9235	KCM25 KC9230 KC8050 TN8025	HG8035 HG8025 GX30	YBM351	GC2135 GC2025	T6030	CA6525	NC3030 NC5530	AC630	MC7025 US735
	M40		TT5100	KCM35 KC9240 KC9245	GX30	YB235	GC2025			NC3030	AC630M	US735
	K01		TT7005	KCK05	HX3505 HG3305 GM3005	YBD052	GC3205 GC3210	T5105 T5010	CA4010 CA4505	NC6015	AC405K AC410K	UC5105
	K10	OC3105	TT1300	KCK15 KCK20 KC9315	HX3515 HG3315 HG8010 GM8015	YBD102 YBD152 YBD152C	GC3205 GC3210 GC3215	T5010 T1115 T5115	CA4515 CA4010 CA4115	N305K NC6010 NC6110	AC415K	MY5015 UX5115
	K20	OC3115D	TT7105 TT7310 TT1500	KCK20 KC9110 KC9320	HG8025 GM8020	YBD152	GC3215	T5115 T5125 T5020	CA4515 CA4115 CA4120	N315K NC5330 PC5300 NC6010	AC420K AC700G	MY5015 UE6110 UC5115
	K30	OC3215		KC9125 KC9325		YBD252		T5125 T9125			AC820P	UE6110

牌号对照表

Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMTOMO	三菱 MISTUBISHI
CVD 铣削 Turning	P10										ACP100	
	P20				GX2030 GX2140	YBC201	GC4220	T3130		NCM325 PC3500	ACP100	F7030 FH7020
	P30	OC4025 OC4225		KC930M	GX2030 GX2140 GX2460	YBC301 YBC302 YBM251 YBM253	GC4230	T3130		NCM325 NCM335 PC5300 NC5330		F7030
	P40	OC4035	TT7800	KC935M	GX2030 GX30 GF30 GX2160	YBM351 YBC401	GC4240			NCM335		
	M10											
	M20	OC4025 OC4225		KC925M		YBM251 YBM253		T3130		NCM325 PC5300 NC5330	ACP100	F7030
	M30	OC4035		KC930M	GX2160 GF30 GX30	YBM351	GC2040	T3130		NCM325 NCM335 PC5300		F7030
	M40			KC930M KC935M	GX2160 GF30 GX30					NCM335		
	K10		TT6800			YBD15 YBD152		T1115 T1015		NCM310K	ACK200	MC5020 F5010
	K20			KC915M			GC3220 K20W	T1115 T1015		NCM320K		MC5020 F5020
	K30			KC920M KC925M KC930M KC935M	GX2030 GX30	YBD252	GC3040					

牌号对照表

Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMTOMO	三菱 MISTUBISHI
PVD 车削 Turning	P10	OP1215	TT6080	KC5010 KC5510 KU10T		YBG202 YBG205	GC1025 GC1525	AH710	PR915 PR1005 PR930 PR1025 PR1115 PR1225			VP10MF
	P20	OP1215		KC5025 KC5525 KC7215 KC7315 KU25T	IP2000	YBG102 YBG105	GC1020 GC1025 GC1525 GC1125	AH710 AH330 AH725 AH120 SH730 GH730 GH130	PR930 PR1025 PR1115 PR1225	PC230		VP10RT VP20RT VP15TF VP20MF
	P30			KC7015 KC7020 KC7035 KU25T	IP3000	YBG202 YBG302	GC1025 GC4125 GC1125	AH710 AH330 AH725 AH120 SH730 GH730 GH130	PR930 PR1025 PR1115 PR1225	PC3535 PC3545	AC530U	VP10RT VP20RT VP15TF VP20MF
	P40		TT8020	KC7030 KC7040 KC7140			GC1020 GC2145	AH740	PR630 PR660	PC240		VP15TF VP20MF
	M10	OP1205	TT5030	KC5010 KC5510 KC6005 KC6015	IP050S	YBG102 YBG105	GC1005 GC1025 GC1105 GC1125	AH710	PR915 PR1025 PR1215 PR1225		AC510U	VP10MF
	M20	OP1215	TT9080	KC5025 KC730 KC5525 KC7020 KC7025	IP100S	YBG202	GC1020 GC1025 GC1125 GC4125	AH710 AH725 AH120 SH730 GH730 GH130 GH330 AH630	PR915 PR930 PR1025 PR1125 PR1215 PR1225	PC9030	AC520U	VP10RT VP20RT VP15TF VP20MF
	M30			KC7030 KC7225		YBG202 YBG205 YBG302	GC1020 GC1125 GC2035	AH120 GH330 AH645 SH730 GH730	PR1125	PC9030	AC520U AC530U	VP10RT VP20RT VP15TF VP20MF
	M40		TT8020				GC2035 GC2145		PR905 PR1215		AC530U	MP7035
	K10			KC5010 KC7210		YBG102 YBG105		AH710 GH110 AH110	PR905 PR1215	PC205K	AC510U	
	K20			KC7015 KC7020 KC7215 KC7315		YBG202	GC1020	AH110 AH710 AH725 AH120 GH110 GH730 GH130		PC215K		VP10RT VP20RT VP15TF
	K30			KC7225			GC4125	GH730 GH130 AH725 AH120				VP10RT VP20RT VP15TF

牌号对照表

Grade Comparison

类别	代号 ISO Code	OKE 欧科亿	特固克 TaeguTec	肯纳 KENNAMETAL	日立 HITACHI	株钻 ZCCCT	山特维克 SANDVIK	泰珂洛 TUNGALOY	京瓷 KYOCERA	克洛伊 KORLOY	住友 SUMTOMO	三菱 MISTUBISHI
PVD 铣削 Turning	P10	OP2202	TT7030 TT7080	KC715M	ATH80D Cy9020 PCA12M Tb6005 Jx1020 PC20M		GC1010 GC1025		PR730 PR830 PR1025 PR1225	PC3525	ACP100 ACP200	
	P20	OP1215 OP1315	TT9030 TT9080	KC522M KC525M	TB6020 CY150 JX1015 CY15	YBG202	GC1010 GC1025 GC2030	AH725 AH120 GH330 AH330	PR730 PR830 PR1025 PR1225 PR1230	PC230 PC3525 PC3535	ACP200	VP15TF
	P30	OP1030	TT9080	KC725M KC530M	JS4060 JS4045 TB6045 CY250 CY25 HC844 JX1045 PTH30E	YBG302	GC1030 GC1010 GC2030	AH730 GH130 AH725 AH130 GH330 AH330 AH120	PR660 PR1230	PC3535 PC130	ACZ300 ACZ350 ACZ200	VP15TF VP30RT
	P40		TT8020 TT8080	KC735M	JS4060 JX1060 GF30 GX30 PTH30E TB6060	YBG402	GC1030	AH140 AH130 AH120 AH730	PR660 PR1230	PC230 PC3545	ACZ350 ACP300	VP30RT
	M10			KC715M	CY9020 JX1020		GC1025 GC1030		PR630 PR730 PR830 PR1025 PR1225		ACP200	
	M20	OP1215 OP1315	TT8020 TT9030 TT9080	KC730 KC522M KC525M	TB6020 CY150 CY15 JX1015	YBG202 YBG205	GC1025 GC1030 GC1040 GC2030	AH330 GH110 AH120 GH330 AH725	PR630 PR730 PR830 PR660 PR1025 PR1225		ACZ310 AC520U ACP300	VP15TF VP20RT VP20MF
	M30		TT8020 TT8080 TT8030	KC725M KC735M	TB6045 CY250 HC844 JM4060 JX1045	YBG302	GC1040 GC2030	AH120 AH130 AH140 AH725 GH130 AH730 GH340	PR630 PR660 PR730 PR830	PC9530	ACZ330 AC520U ACZ350	VP15TF VP20RT VP30RT MP7035
	M40		TT8020 TT8080"		TB6060 PTH40H GF30 GX30 JX1060			AH140	PR660		ACZ350 ACP300	VP30RT
	K10			KC510M	JX1005 JX1020 ASC05E CY9020 TB6005 CY100H	YBG102 YBG105	GC1010	AH110 GH110 AH330	PR510 PR905 PR1210	PC205K PC215K	ACZ310 ACK200	
	K20	OP2202	TT6030 TT6080	KC520M KC525M	TB6020 CY150 JX1015 PTH13S	YBG202 YBG152	GC1010 GC1020	AH725 AH120 GH110 AH330 AH120	PR905 PR1210	PC215K	ACZ310 ACK200	VP15TF VP20RT
	K30			KC725M KC735M	TB6045 GX2030 CY250 JX1045 PTH30E PTH40H	YBG205	GC1020	GH130			ACZ330 ACK300	VP15TF VP20RT

硬度对照表

Hardness Comparison

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
70.0	86.6	1037		
69.5	86.3	1017		
69.0	86.1	997		
68.5	85.8	978		
68.0	85.5	959		
67.5	85.2	941		
67.0	85.0	923		
66.5	84.7	906		
66.0	84.4	889		
65.5	84.1	872		
65.0	83.9	856		
64.5	83.6	840		
64.0	83.3	825		
63.5	83.1	810		
63.0	82.8	795		
62.5	82.5	780		
62.0	82.2	766		
61.5	82.0	752		
61.0	81.7	739		
60.5	81.4	726		
60.0	81.2	713		2555
59.5	80.9	700		2500
59.0	80.6	688		2450
58.5	80.3	676		2395
58.0	80.1	664		2345
57.5	79.8	653		2295
57.0	79.5	642		2250
56.5	79.3	631		2205
56.0	79.0	620		2160
55.5	78.7	609		2115
55.0	78.5	599		2075
54.5	78.2	589		2035
54.0	77.9	579		1995
53.5	77.7	570		1955
53.0	77.4	561		1920
52.5	77.1	551		1885
52.0	76.9	543		1850
51.5	76.6	534		1815

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
51.0	76.3	501		1780
50.5	76.1	494		1750
50.0	75.8	488		1720
49.5	75.5	481		1690
49.0	75.3	474		1660
48.5	75.0	468		1630
48.0	74.7	461		1605
47.5	74.5	455		1575
47.0	74.2	449		1550
46.5	73.9	442		1525
46.0	73.7	436		1500
45.5	73.4	430		1475
45.0	73.2	424		1450
44.5	72.9	418		1430
44.0	72.6	413		1405
43.5	72.4	407		1385
43.0	72.1	401		1360
42.5	71.8	396		1340
42.0	71.6	391		1320
41.5	71.3	385		1300
41.0	71.1	380		1280
40.5	70.8	375		1260
40.0	70.5	370		1245
39.5	70.3	365		1225
39.0	70.0	360		1210
38.5		355		1190
38.0		350		1175
37.5		345		1160
37.0		341		1140
36.5		336		1125
36.0		332		1110
35.5		327		1095
35.0		323		1080
34.5		318		1065
34.0		314		1050
33.5		310		1035
33.0		306		1020
32.5		302		1010

硬度对照表

Hardness Comparison

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
32.0		304	298	995
31.5		300	294	980
31.0		296	291	970
30.5		292	287	960
30.0		289	283	950
29.5		285	280	935
29.0		281	276	920
28.5		278	273	910
28.0		274	269	900
27.5		271	266	890
27.0		268	263	880
26.5		264	260	870
26.0		261	257	860
25.5		258	254	850
25.0		255	251	835
24.5		252	248	830

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
24.0		249	245	820
23.5		246	242	810
23.0		243	240	800
22.5		240	237	790
22.0		237	234	785
21.5		234	232	775
21.0		231	229	765
20.5		229	227	760
20.0		226	225	750
19.5		223	222	745
19.0		221	220	735
18.5		218	218	730
18.0		216	216	725
17.5		214	214	715
17.0		211	211	710

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