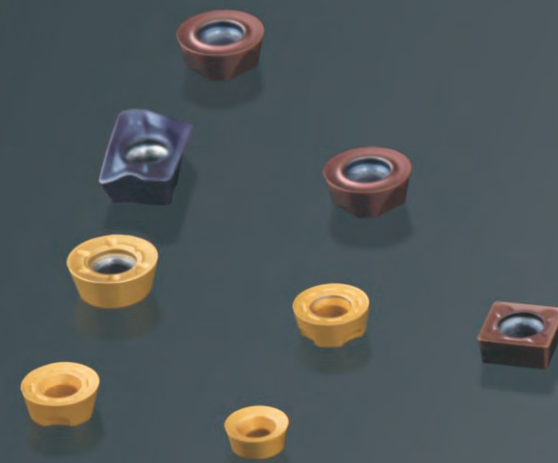


品质源于
1956
Since 1956地址/Add: 四川省成都市新都区工业大道东段601号
NO.601, Eastern Sec Industrial Rd, Xindu Dist, Chengdu, Sichuan, China

公司电话/Tel: 028-83243828

销售电话: 028-83242134

华东片区 (上海, 江苏, 浙江, 安徽)

028-83258061

华北片区 (河南, 河北, 山东)

028-83249579 028-83242241

北方片区 (天津, 北京, 辽宁, 吉林, 黑龙江, 山西, 内蒙古)

028-83257552 028-83246702

华中片区 (湖南, 湖北)

028-83257552 028-83243290

西南片区 (四川, 云南, 贵州, 重庆)

028-83246516 028-83242077

华南片区 (广东, 广西, 福建, 江西, 海南)

028-83246516 028-83242077

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外贸及相关业务 International Trade and related business / Tel: 028-83271096 / 83242241

市场办 / Tel: 028-83257552

传真 / Fax: 028-83242075

网址 / Web: www.ctri.com.cn

阿里巴巴旺铺 / Alibaba: http://ctri.en.alibaba.com/

高温合金加工刀具
HIGH TEMPERATURE
ALLOY MACHINING TOOLS成都工具研究所有限公司
CHENGDU TOOL RESEARCH INSTITUTE CO.,LTD

Company Brief

公司简介

成都工具研究所有限公司（以下简称“工具所”）1956年创建于北京，是原国家机械工业部直属的我国机械行业唯一的综合性工具科研开发机构，1965年内迁至成都。1998年经国家科技部批准，成为“国家精密工具工程技术研究中心”和“国家工具生产力促进中心”的依托组建单位。1999年转制为科技型企业，进入中国机械工业集团有限公司。

Chengdu Tool Research Institute Co.,Ltd (hereafter CTRI) is founded in 1956 and formally under the direction of China's Machinery Ministry as the sole comprehensive tool researching and scientific developing institution of China's Machinery industry. CTRI moved to Chengdu in 1965. Approved by Ministry of Science and Technology, CTRI became the supporting institution of State Precision Tool Engineering Technology Research Center in 1998. It was later approved into China National Machinery Industry Corporation (SINOMACH) and transformed to a scientific and technological enterprise in 1999.

工具所主要从事精密切削刀具、精密测量仪器和表面改性技术三大类机械产品共性技术研究及其高新技术产品的开发与生产。已形成了以硬质合金石油管螺纹梳刀为主导并逐步发展了轴承刀具、超硬刀具、数控刀具、深孔加工刀具、汽车刀具、型线刀具、配套刀具、齿轮测量仪器、主动量仪、激光干涉仪、工具专机以及PVD、CVD、PCVD涂层技术服务、QPQ盐浴复合处理技术与装备等多种产品并存的产业结构。

CTRI is mainly engaged in precise cutting tools, measuring instruments, surface modified technique and advanced technological products. With the leading development of carbide chasers for oil pipe, CTRI extends products varieties for more industry structures, including bearing inserts, PCD/CBN cutting tools, CNC cutting tools, deep hole machining tools, automobile cutting tools, profile cutting tools, coupling tools, gear tester, in process gauge, calibration laser interferometer, special machines, and PVD, CVD, PCVD coating technical service, QPQ salt bath treatment technology and equipment.

行业地位

Industry Status

成都工具研究所是我国工具行业科研、技术的领头羊、行业归口所，以下组织挂靠在我所：

Chengdu Tool Research Institute Co., Ltd is the bellwether and centralized R&D institution in China's Tool industry. These following organizations are subordinate to CTRI:

中国机械工业金属切削刀具技术协会
China Metal Cutting Tool Engineering Association (CMCTEA)
中国机床工具工业协会工具分会
Branch of China Machine Tool & Tool Builder's Association
中国仪器仪表学会机械量测试仪器学会
China Instrument and Control Society for Mechanical Measuring Instruments
国家刀具质量监督检测中心
National Cutting Tool Quantity Supervision Inspection Center
机械工业量具量仪产品质量监督检测中心
Supervision & Inspection Center for Measuring Instrument in Mechanical Industry
国家进出口商品检验局(刀具)认可实验室
Laboratory of National Import and Export Commodity Inspection Bureau (Cutting Tools)
国家进出口商品检验局(量具量仪)认可实验室
Laboratory of National Import and Export Commodity Inspection Bureau (Measuring Instruments)

科技成果检测鉴定国家级检验机构(刀具)
China National Inspection and Testing Agency of Scientific and Technological Achievements(Cutting Tools)
科技成果检测鉴定部级检验机构(量具量仪)
China National Inspection and Testing Agency of Scientific and Technological Achievements(Measuring Gauges)
全国刀具标准化技术委员会秘书处 (TC 91)
National Cutting Tools Standardization Technology Committee Secretariat
全国量具量仪标准化技术委员会秘书处 (TC 132)
National Measures Standardization Technology Committee Secretariat
ISO/TC 29 (工具) P成员国内归口单位
China Domestic Focal Point of ISO/TC29(Tool) P member
ISO/TC213 (产品的几何和几何技术规范及检验) P成员国内归口单位
ISO/TC213(criterion and inspection for production's geometry and geometrical technology) P member internal perform unite
CNAS 国家认可实验室
CNAS National Accreditation Laboratory
《工具技术》杂志社
Tool Engineering
国家精密工具工程技术研究中心
National Precision Tools Engineering Technology Research Center
国家工具生产力促进中心
National Tools Productivity Promotion Center
中国机械工程学会生产工程分会切削专业委员会
China Profession Committee, Production Engineering Branch, China Mechanical Engineering Society
四川省机械工程学会机加工专业委员会
Machining Profession Committee, Sichuan Mechanical Engineering Society

科研成果

Scientific Achievements

自成都工具研究所成立以来，主要取得以下科研成果：

Followings are main scientific achievements since the foundation of CTRI:

一、国家发明奖三项：

Three National Invention Awards

齿轮整体误差测量新技术 发明二等奖

The second prize in new technology of integrated error measuring gear Invention

单晶金刚石钎焊工艺及焊料 发明二等奖

The second prize in mono-crystalline diamond brazing technology and solder Invention

无钴易磨高性能高速钢 发明三等奖

The third prize in Wuxi easy grinding high speed steel

二、国家科技进步奖八项

Eight "the national science and technology progress awards"

量具刀具产品标准的制定和贯彻 二等奖

The second prize in The formulation and implementation of measuring tool products standard

中模数硬质合金齿轮滚刀 三等奖

The third prize in the module of carbide gear hob

立方氮化硼聚晶机理及其应用 三等奖

The third prize in PCBN mechanism and application

涂层硬质合金刀片成套技术及装备研究 三等奖

The third prize in researching coated carbide inserts integrated technology and equipment

QPQ盐浴复合处理技术及成套设备 二等奖

The second prize in composite treatment technology for QPQ salt bath and complete sets of equipment

机电一体化发展预测与综合分析（合作项目） 三等奖

The third prize in Electromechanical integration development prediction and comprehensive analysis (cooperated projects)

材料动态断裂性能研究及其在典型机械零部件上的应用（合作项目） 三等奖

Research on dynamic fracture properties of materials and its application in the typical mechanical parts on the (cooperated project) the Third prize

机械工业共性数据库（合作项目） 二等奖

The second prize in Machinery industry common database (cooperated projects)

三、省部科技进步奖

The Provincial Department of science and Technology Progress Award

121项（略）

121 items (omission)



人力资源

Human Resources

全所共有职工500余人，其中科技人员320人，有突出贡献的国家级专家3人，享受国家政府津贴26人，省部级专家15人，研究员级高级工程师27人，高级工程师103人，高级会计师、高级经济师10人、中级技术人员140人，硕士研究生14人，大中专生146人，专业涉及机械、金属材料、电子、计算机、机电一体化等专业。

CTRI presently has almost 500 employees, 320 of whom are technical staff, 3 state-level experts with outstanding contribution, 26 recipients of government special allowance, 15 ministerial level experts, 27 professor level senior engineers, 103 senior engineers, 10 senior accountants and senior economists, 140 intermediate technical staff , 14 with master degree, 146 with college diploma and employees are widely involved in machinery, metal materials, electronic, computer, electromechanical integration specialty.

核心竞争力

Competitive Advantages

目前成都工具研究所已在刀具材料、精密复杂成形刀具与数控刀具设计及加工技术、刀具表面强化改性技术与装备、大型精密量仪设计制造、激光测量及光电传感器技术以及计算机软件等技术领域，形成了独特的整体、核心成套技术优势，初步构成了以硬质合金石油管螺纹梳刀、硬质合金精密异形刀具、超硬刀具、刀具表面强化技术及装备、齿轮测量仪、激光测量仪等六项主导产品，包含30多项核心、高新技术产品的产品技术结构，这些产品和技术大都处于国内领先或国际先进水平。

Chengdu Tool Research Institute has formed a completed and unique technical competitive advantages in tool material, precise and complex shaped cutter and NC tool design and processing technology, cutting tool surface modification and strengthening technology and equipment, large-scale design precision instrument manufacturing, laser and photoelectric sensor technology and computer software technology. It initially formed six leading products including carbide treading tools for oil pipe, carbide precision special-shaped inserts, super hard cutting tools, tool surface strengthening technology and equipment, gear measuring instrument, laser measuring instrument. Those products are supported by more than 30 core, high-tech products technology structure and most of these products and technology are leading technologies in the domestic and international advanced level.



质量环境控制

Quality & Environmental Control

质量环境认证: ISO9001:2015 ISO14001:2015
Quality & Environmental Certification: ISO9001:2015 ISO14001:2015

质量环境方针:
以技术创新为先导, 以质量管理为保证, 以持续改进为核心, 以顾客满意为目标。
Quality & Environmental Policy:
To make technical innovation as the guide, the quality of management as the guarantee, continuous improvement as the core and take customer satisfaction as the goal.

质量环境目标:
★ 贯彻 ISO9001:2015 标准, 通过 ISO9001:2015 质量管理体系认证, 并保持体系有效运行。
★ 技术不断创新, 每年设计开发新产品或新项目2项以上。
★ 以质量管理为保证, 加强过程控制, 实施持续改进, 产品质量精益求精, 确保产品出厂合格率达100%。三年内使主导产品合格率提高到95%以上, 成品交检批次合格率达到95%。
★ 以顾客为关注焦点, 增进顾客满意, 三年内使顾客满意率达98%以上, 顾客投诉解决率达到100%。
★ 顾客重大投诉为零, 重大质量事故为零, 重大设备安全事故为零。

Quality & Environmental Objectives:
★ In carrying out the standard of ISO9001:2015, through the ISO9001:2015 quality management system certification, and keep the system running effectively.
★ Technology innovation, design and develop more than 2 new products or new projects each year
★ To guarantee the quality management, strengthen the process control, carry out continuous improvement, refine on product quality, to ensure 100% products manufactured pass rate. Increase leading products pass rate to 95% in three years and the finished product inspection pass rate to 95%.
★ Customer focus, improve customer satisfaction, three years to make customer satisfaction rate reaches above 98%, to solve customer complaint rate reached 100%.
★ Customer major complaints to zero, a major quality accidents to zero, zero accident of major equipment.



服务管理

Service Management

服务宗旨:
全心全意为用户服务

服务承诺:
尽可能满足用户的合理需求

服务标准:
快速、及时、有效, 向用户提供一流产品和一流服务

Service Aim : put one's heart and soul into service for the user

Service Commitment: to meet the reasonable needs of users as far as possible

Service standards: rapid, timely, effective, provide first-class products and first-class service to users

企业合作

Business Cooperation

- 与联合国合作建立中国量仪基地
- 与德国Klingelnberg公司合作, 锥齿轮测量技术出口德国
- 广范与国外公司进行技术交流与合作
- 与国内大专院校、大型企业进行广范的技术交流与合作
- 与英国普华永道咨询公司合作, 全面提升企业形象和管理能力

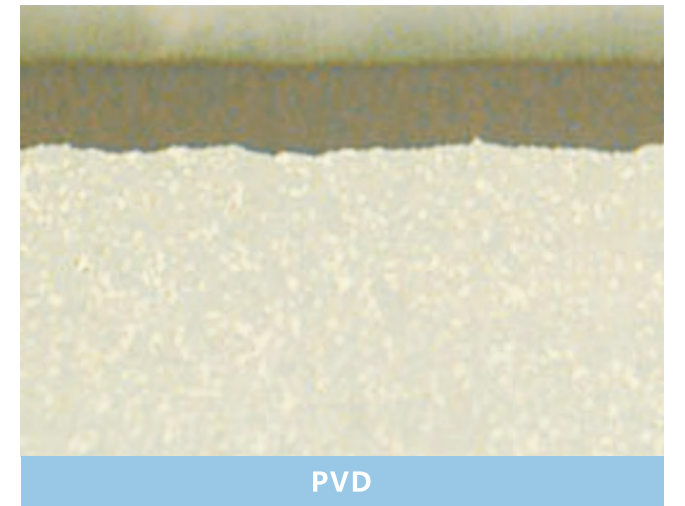
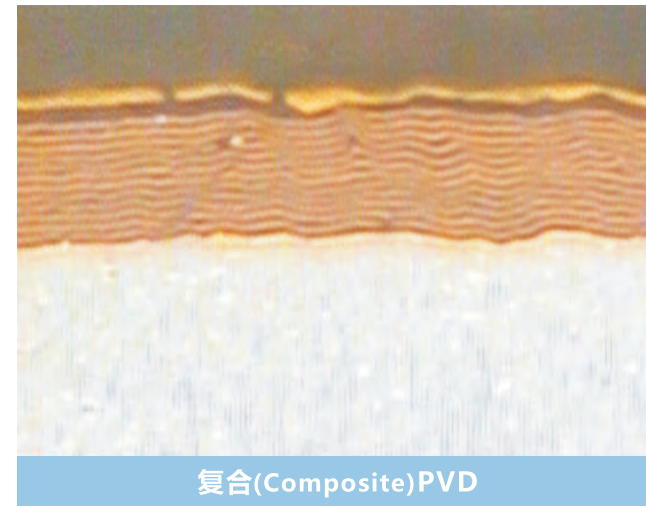
- Cooperation with the United Nations to establish Chinese instrument base
- Cooperation with Klingelnberg (Germany), bevel gear measurement technology exported to Germany
- Technological exchanges and cooperation with foreign companies
- A wide range of cooperation and technological exchanges with colleges, universities and large domestic enterprises
- Cooperation with British consulting company to improve corporate image and management ability

叶片及特钢系列专用硬质合金铣刀片材料及涂层介绍

High Temperature Alloy Carbide Inserts Grade and Coating Introduction

本公司利用添加稀土元素和采用特殊的烧结工艺, 研发出专用铣削车削等基体材质牌号GY83、GY87和GY93、ZP8, 特别在搭配优选的PVD复合涂层后, 具有卓越的韧性和耐磨性, 主要用于镍基高温合金、钛合金、不锈钢、高强度钢、高硬钢的铣削及车削, 广泛用于汽轮机、飞机发动机叶片、机匣等难加工材料的铣削和车削。该种涂层在干式铣削不锈钢时具有极高的抗月牙洼磨损和抗后刀面磨损性能。

CTRI has developed special grade GY83,GY87,GY53,GY03, and GY08 for turning and milling by adding rare earth (RE) and applying special sintering processing. Products demonstrate excellent toughness and wear resistance after PVD and CVD composite coating, mainly applied for high-temperature alloy, titanium alloy and stainless steel milling, widely used in milling and turning of steam turbine, blade of aircraft engine, casing and other hard- to -machine materials. The coating has high anti crater wear resistance and flank wear performance in dry milling of stainless steel.

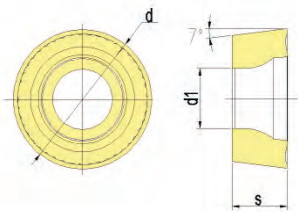


切削参数推荐

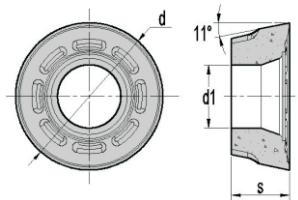
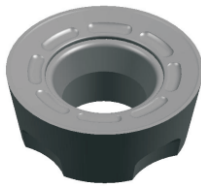
RECOMMENDED CUTTING PARAMETERS

切削材质 Cutting Material	不锈钢 Stainless Steel		镍基合金 Ni-based Alloy	钛合金 Titanium Alloy
	粗加工 Rough Machining	精加工 Finish Machining		
切削速度 Cutting Speed(m/min)	100~200	160~300	40~120	50~75
进给 Feed(m/min)	0.6~1.2	0.6~1.0	0.6~0.8	0.6~0.8
切深 Cutting Depth(mm)	0.5~2.5	0.5~2.5	0.5~1.5	0.5~1.5
切削材质及涂层 Grade	GY8768	GY8785	GY8368	GY8785
冷却方式 Coolant	干Dry	湿Wet	干/湿Dry/Wet	干/湿Dry/Wet

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade

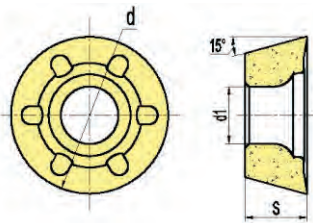


刀片型号 Order No.	尺寸 Dimension (mm)			材料牌号 Grade		
	d	s	d1	GY83	GY87	ZP8
RCMT0803MOT	8	3.18	3.2	●	○	●
RCMX09T3-395	9.525	3.95	4	○	●	○
RCKT10T3MOT	10	3.97	4.2	●	○	○
RCKT10T3MOT-3.5	10	3.97	3.9	●	○	○
RCKT1204MO	12	4.76	4.05	○	●	○
RCMT1204MO-ST	12	4.76	4.4	○	○	●
RCHT1204MO	12	4.76	4.2	○	●	○
RCKT1606	16	6.35	6.6	○	●	○
RCMT1605MO-X6	16	5.56	5.4	●	○	○
RCKT1606-X500	16	6.35	5.5	○	●	○
RCKT2006	20	6.35	6.6	○	●	○

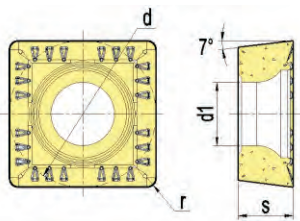


刀片型号 Order No.	尺寸 Dimension (mm)			材料牌号 Grade	
	d	s	d1	GY83	GY87
RPEX0803M3E	08	3.18	3.3	○	●
RPHT10T3MOE	10	3.97	4.3	○	●
RPHT10T3MOF	10	3.97	4.3	○	●
RPHT10T3M316	10	3.97	3.6	○	●
RPHT10T3M318	10	3.97	3.6	○	●
RPGT10T3MO-302	10	3.97	4	○	●
RPKT10T3MO	10	3.97	4.5	●	○
RPMT10T3MO	10	3.97	4.4	●	○
RPMT1204-304	12	4.76	4.4	○	●
RPMT1204-306	12	4.76	4.4	○	●
RPMT1204-306T	12	4.76	4.4	○	●
RPMT1204-304	12	4.76	4.4	○	●
RPMT1204-3500	12	4.76	4.4	○	●
RPMT1605MO	16	5.56	5.4	○	●
RPGT2006MO	20	6.35	6	○	●

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade

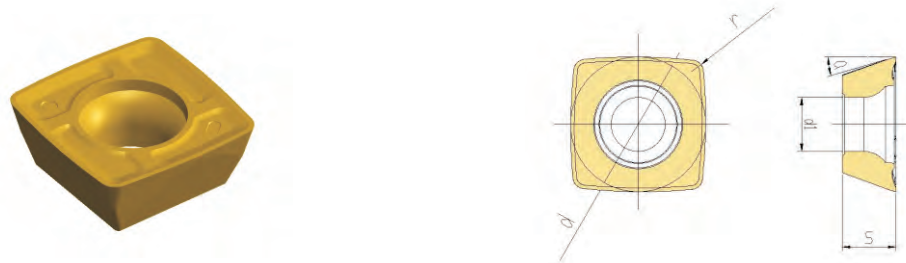


刀片型号 Order No.	尺寸 Dimension (mm)			材料牌号 Grade		
	d	s	d1	GY83	GY87	ZP8
RDHT0602MO	6	2.38	2.4	○	●	○
RDHT0803MOX	8	3.18	2.8	○	●	○
RDMT10T3MO3	10	3.97	3.7	○	●	○
RDMT10T3MO5	10	3.97	3.7	○	●	○
RDGT10T3MO	10	3.97	3.5	○	●	○
RDGT10T3MOH	10	3.97	4.3	○	○	●
RDHT1204MO	12	4.76	4.4	○	●	○
RDGT1204MO-HE	12	4.76	4.4	○	●	○
RDHT12T3-F6	12	3.97	4.3	○	●	○
RDHT12T3-F6E	12	3.97	4.3	○	●	○
RDMB1604MO	16	4.76	5	●	○	●
RDMB1604MO-WG	16	4.76	5.4	○	●	○
RDMB1605MO	16	5.56	5.4	○	○	●
RDMT1605MO	16	5.56	5.4	○	●	○
RDMT1605MO-BD	16	5.56	5.4	○	●	○
FDMT2006	20	6.55	6.6	○	●	○

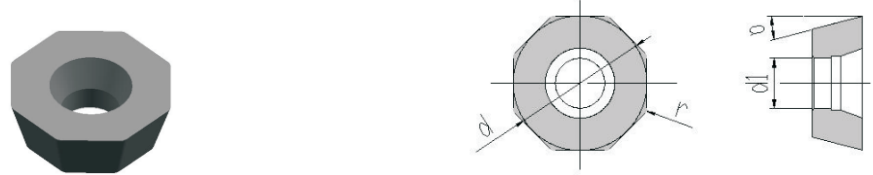


刀片型号 Order No.	尺寸 Dimension (mm)				材料牌号 Grade		
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SCMT060204	6	2.32	2.5	0.4	●	○	●
SCMT08T310	8.95	3.85	4.4	1.0	○	●	○
SCMT08T312	8.95	3.85	4.4	1.2	○	●	○
SCMT09T308	9.525	3.97	4.4	0.8	○	●	○
SCGT120408	12.7	4.76	5.7	0.8	●	○	●
SCMT120408-GH	12.7	4.76	5.5	0.8	○	●	○
SCMT12M512EN	12.7	5	5.6	1.2	○	●	○
SCGT120631E	12.7	6.35	5.5	3.1	○	●	○

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade

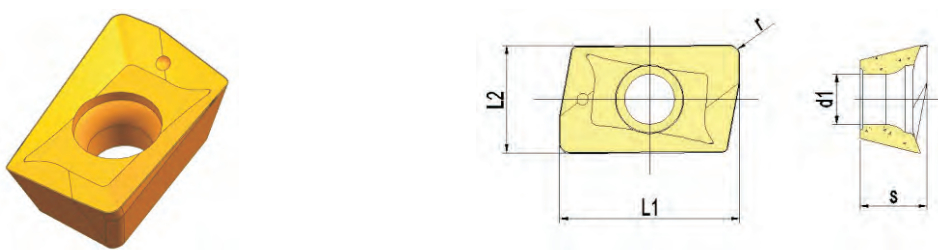


刀片型号 Order No.	尺寸 Dimension (mm)					材料牌号 Grade		
	d	s	d1	r	a	GY83	GY87	ZP8
SXGT060204	6	2.32	2.5	0.4	13°	●	○	○
SOMT07T308	7.94	3.55	2.8	0.8	10°	●	○	○
SOMT080312	8.5	3.75	3.6	1.2	11°	○	●	○
XDKT090307	9	3.57	3.6	0.8	16°	○	●	○
XDLT090408ER	9.525	4.76	4.0	0.8	11°	○	●	○
XDLT090412ER	9.525	4.76	4.0	1.2	11°	○	●	○
SDMT090408	9.8	4.25	4.4	0.8	15°	○	●	○
OP90-T3208B	9.8	4.2	4.0	0.8	17°	●	○	○
SDMX09T316	10	4.0	3.8	1.6	15°	○	●	○
SPMT120408-GH	12.7	4.76	5.5	0.8	11°	○	●	○
SDMT120408-GH	12.7	4.76	5.5	0.8	15°	○	●	○
ST690-10R10	10	4.4	4.4	1.0	12°	○	●	○



刀片型号 Order No.	尺寸 Dimension (mm)					材料牌号 Grade	
	d	s	d1	r	a	GY83	GY87
SXGT060204	12.7	4.76	0	0.8	11°	○	●
SOMT07T308	12.7	4.76	4.7	0.8	15°	○	●
SOMT080312	12.7	4.76	4.7	0.2	15°	○	●
XDKT090307	17.9	4.76	3.3	0.5	25°	○	●
XDLT090408ER	19.05	6.15	5.7	0.4	0°	○	●
XDLT090412ER	22	6.7	5.4	1.0	0°	○	●
SDMT090408	22	6.6	5.4	2.0	0°	○	●
OP90-T3208B	22	5.5	5.4	2.0	0°	○	●

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade

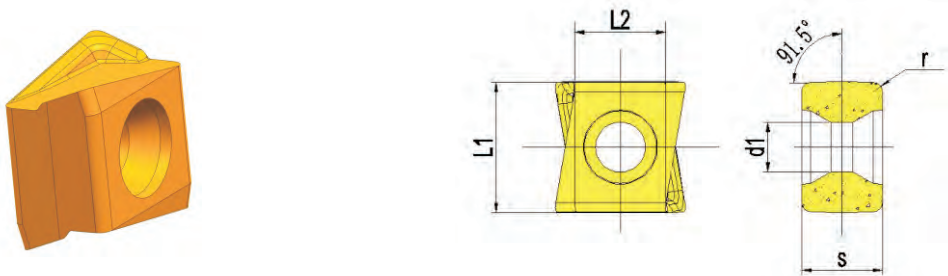


刀片型号 Order No.	尺寸 Dimension (mm)					材料牌号 Grade		
	L1	L2	r	s	d1	GY83	GY87	ZP8
APKT1135-GA	11.3	6.2	0.8	3.3	2.8	●	●	○
APKT1135F08	11.3	6.2	0.8	3.4	2.9	●	●	●
APKT1135E085	11.3	6.3	0.8	3.4	2.9	●	●	○
APKT1135E305	11.3	6.3	3.3	3.4	2.9	●	●	●
ADST390-11PL	11.7	6.8	0.8	3.6	2.8	●	●	●
ADHT120408G	13.2	8	0.8	4.36	3.4	○	●	○
ADHT120412G	13.2	8	1.2	4.36	3.4	○	●	○
ADHT120416M	13.2	8	1.6	4.36	3.4	○	●	○
ADHT120430G	13.2	8	3.0	4.36	3.4	○	●	○
ADHT120432G	13.2	8	3.2	4.36	3.4	○	●	○
ST690-10R31	11.9	10	3.1	4.4	4.4	○	●	○
XPKT12T332	18.8	10.1	3.1	3.97	4.2	○	○	●
ACET150612TR-SC	15.6	12.7	1.2	5.6	6.35	○	●	○
APKT160508-GA	17.36	9.3	0.8	5.2	4.4	○	●	○
APKT1605K08	17.54	9.4	0.8	5	4.4	○	●	○
APMT170516R-EM	18.5	10.7	1.6	5.5	4.4	●	●	○
STR390-180612H	18.6	11	1.2	6.25	4.4	○	●	○
APMT250616-A3	26.5	16.5	1.6	6.35	6.6	○	●	○
APMT250616-A4	26.5	16.5	1.6	6.35	6.6	○	●	○

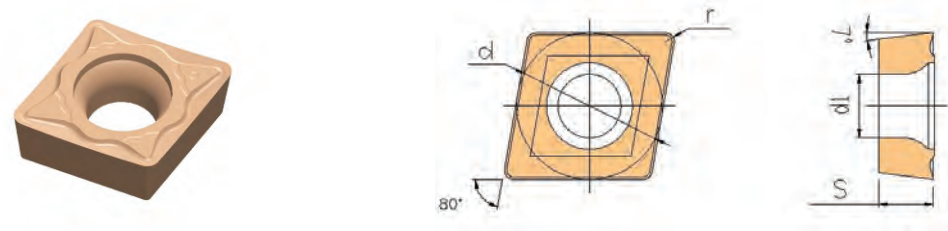


刀片型号 Order No.	尺寸 Dimension (mm)					材料牌号 Grade	
	L1	L2	R	s	d1	GY83	GY87
R09-2-T03090	18.46	10.4	9.8	3.97	4	○	●
R12-2-04090	23.23	13.0	12.5	4.76	4.8	○	●

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade

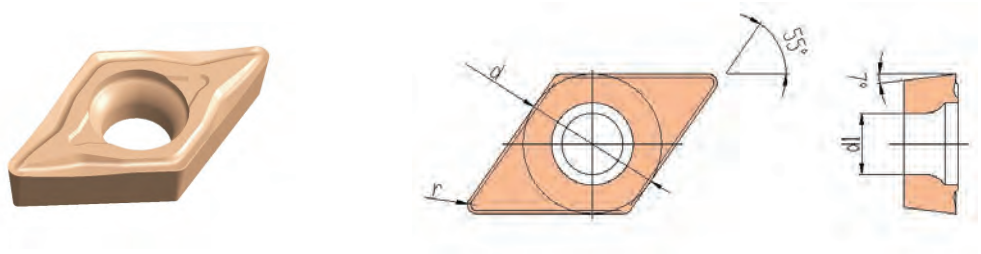


刀片型号 Order No.	尺寸 Dimension (mm)					材料牌号 Grade	
	L1	L2	r	s	d1	GY83	GY87
F110704	11.5	8	0.4	7.1	4.4	●	●
F110708	11.5	8	0.8	7.1	4.4	●	●
F110712	11.5	8	1.2	7.1	4.4	●	●
F110716	11.5	8	1.6	7.1	4.4	●	●

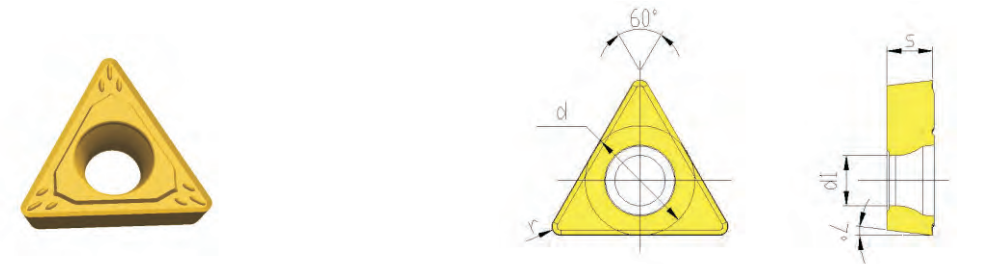


刀片型号 Order No.	尺寸 Dimension (mm)				材料牌号 Grade		
	d	s	d1	r	GY87	GY93	ZP8
CCMT060204	6.35	2.38	2.8	0.4	●	●	●
CCMT080308	8	3.18	3.4	0.8	●	●	○
CCMW09T302	9.525	3.97	4.2	0.2	○	●	○
CCMT09T304-TK	9.525	3.97	4.2	0.4	○	●	○
CCGT09T308-ST	9.525	3.97	4.2	0.8	●	●	●
CCGT09T312-ST	9.525	3.97	4.2	0.8	●	●	●
CCGT120404HP	12.7	4.76	5.4	0.4	○	●	○
CCGT120408HP	12.7	4.76	5.4	0.8	○	●	○
CCMT120408-WT	12.7	4.76	5.4	0.8	○	●	○
CCMW150508	15.88	5.56	5.7	0.8	●	●	○
CCMW150512	15.88	5.56	5.7	1.2	●	●	○
CCMW150516	15.88	5.56	5.7	1.6	●	●	○

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade

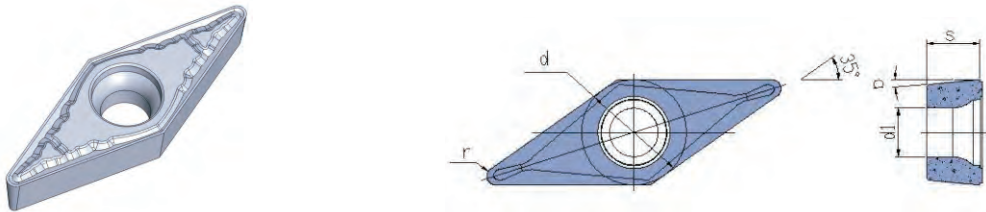


刀片型号 Order No.	尺寸 Dimension (mm)				材料牌号 Grade		
	d	s	d1	r	GY83	GY93	ZP8
CCMT060204	6.35	2.38	2.8	0.4	●	●	○
CCMT080308	9.58	3.97	4.4	0.2	○	●	●
CCMW09T302	9.525	3.97	4.3	0.4	○	●	●
CCMT09T304-TK	9.525	3.97	4.4	0.8	○	●	●

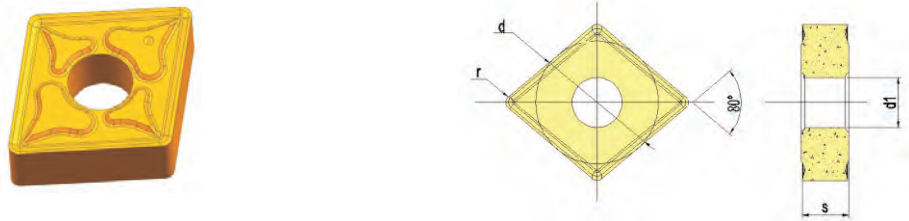


刀片型号 Order No.	尺寸 Dimension (mm)				材料牌号 Grade	
	d	s	d1	r	GY93	GY83
TCMT110202	6.35	2.38	2.9	0.2	●	●
TCMT16T308-TG	9.525	3.97	4.4	0.8	●	●
TCMT22M508EN	12.7	5.1	5.5	0.8	●	●

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade

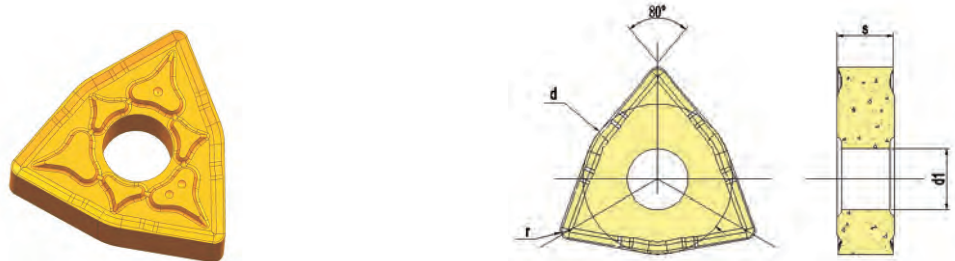


刀片型号 Order No.	尺寸 Dimension (mm)					材料牌号 Grade	
	d	s	d1	r	a	GY83	GY93
VBMT160402-GF	9.525	4.76	4.4	0.2	5°	●	●
VBMT160404-GH	9.525	4.76	4.4	0.8	5°	●	●
VBMT160408-GH	9.525	4.76	4.4	0.8	5°	●	●
VBMT160408-CN	9.525	4.76	4.4	1.2	5°	●	●
VBMT160412-PM	9.525	4.76	4.4	1.2	5°	●	●
VCMT160402-GF	9.525	4.76	4.4	0.2	7°	●	●
VCMT160404-GH	9.525	4.76	4.4	0.8	7°	●	●
VCMT160408-GE	9.525	4.76	4.4	0.8	7°	●	●
VCMT160412-GM	9.525	4.76	4.4	1.2	7°	●	●
VCMT160412-PM	9.525	4.76	4.4	1.2	7°	●	●
VCMT160425	9.525	4.76	4.4	2.5	7°	●	●

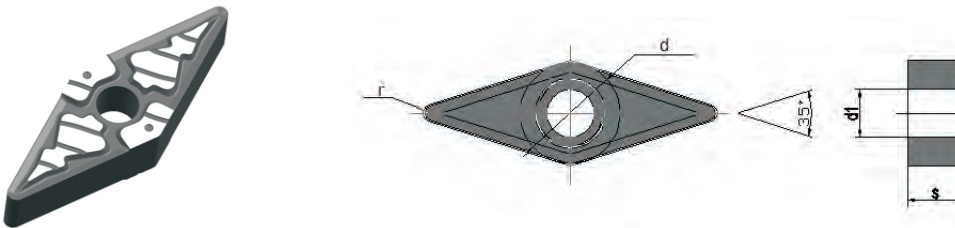


刀片型号 Order No.	尺寸 Dimension (mm)					材料牌号 Grade	
	d	s	d1	r		GY83	GY93
CNMG120401-GK	12.7	4.76	5.16	0.1		●	●
CNMG120402-GK	12.7	4.76	5.16	0.2		●	●
CNMG120404-GK	12.7	4.76	5.16	0.4		●	●
CNMG120404F	12.7	4.76	5.16	0.4		●	●
CNMG120408-GN	12.7	4.76	5.16	0.8		●	●
CNMG120408-GK	12.7	4.76	5.16	0.8		●	●
CNMG120412-NRA	12.7	4.76	5.16	1.2		●	●
CNMG160608-SC	15.88	6.35	6.35	0.8		●	●
CNMG160608MS	15.88	6.35	6.35	0.8		●	●
CNMG160612MS	15.88	6.35	6.35	1.2		●	●
CNMG160616MS	15.88	6.35	6.35	1.6		●	●
CNMG190608-MSK	19.05	6.35	7.94	0.8		●	●
CNMG190612-MSK	19.05	6.35	7.94	1.2		●	●
CNMG190616-MSK	19.05	6.35	7.94	1.6		●	●
CNMG190616-GN	19.05	6.35	7.94	1.6		●	●
CNMG190624-MSK	19.05	6.35	7.94	2.4		●	●

●代表主推牌号 Recommended Grade ○代表可选牌号 Optional Grade



刀片型号 Order No.	尺寸 Dimension (mm)				材料牌号 Grade		
	d	s	d1	r	GY93	GY83	ZP8
WNMG080404-MC	12.7	4.76	5.16	0.4	●	●	●
WNMG080408-MC	12.7	4.76	5.16	0.4	●	●	●
WNMG080408-GN	12.7	4.76	5.16	0.8	●	●	●
WNMG080408-TN	12.7	4.76	5.16	0.8	●	○	○
WNMG080408-MF	12.7	4.76	5.16	0.8	○	○	●
WNMG080412-MF	12.7	4.76	5.16	0.8	○	○	●



刀片型号 Order No.	尺寸 Dimension (mm)				材料牌号 Grade	
	d	s	d1	r	GY93	GY83
VNMG160404-F	9.525	4.76	3.82	0.4	●	○
VNMG160404-GH	9.525	4.76	3.82	0.4	●	○
VNMG160408-GH	9.525	4.76	3.82	0.8	●	○