市场与售后服务
：0717-6076808
：service@cjmt.com.cn

物资采购
：supply@cjmt.com.cn

专利与知识产权
：office@cjmt.com.cn

人事管理及招聘
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社会责任
：esg@cjmt.com.cn

资金往来与账务
：0717-6076852
：finance@cjmt.com.cn

信息技术相关事务
：0717-6076880
：info@cjmt.com.cn

公司网址　　企业微信

品格·品质·品位

CJMT 长机科技 2025

宜昌长机科技有限责任公司
YICHANG CHANGJIANG MACHINE TECHNOLOGY CO.,LTD

地址(Add):湖北省宜昌市长机路1号(443003)
(NO.1, Changji Rd, Yichang, Hubei , 443003, China)
销售热线(Hot line):0717-6076866，6076869 (E)
公司网址(Website):www.cjmt.com.cn
电子邮件(E-mail):market@cjmt.com.cn

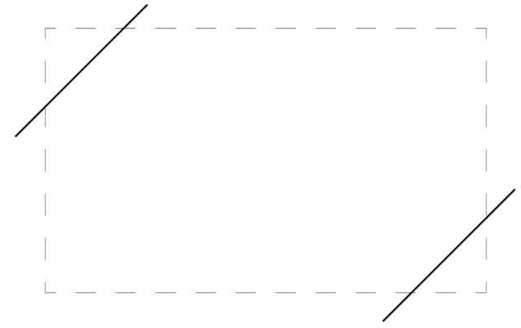
CJMT 长机科技

宜长®

核心价值观：

成就客户、追求卓越；
以奋斗者为本、责在行动；
诚信合作、和谐发展。

Value:
Customer Success, Excellence Pursued;
People-Centric, Action-Driven;
Integrity in Collaboration, Harmony in Progress.



企业愿景：

客户满意、员工自豪、环境优美、社会景仰

Vision:
Customer Satisfaction, Employee Pride, Beautiful Environment, Social Admiration.

企业使命：

为国家富强而努力打造世界级齿轮机床“品类王”

Mission:
To strive for the prosperity of our nation by endeavoring to create a world-class "category king" in gear cutting machines.

经营理念：

志在长远、专注机床、科技引领、守正创新

Business Philosophy:
Committed to the long-term, focused on machine tools, driven by technology, innovating while upholding core values.

服务领域：

齿轮是传递运动和动力的最广泛的关键基础零部件。公司产品通过生产齿轮以构成齿轮传动装置，应用于船舶、汽车摩托、农机、机床、工程机械、轨道交通、起重运输、冶金、电力能源、石油化工、家用电器和仪器仪表等诸多领域

Service Fields:
Gears are pivotal components in transmitting motion and power across modern mechanical systems. As a leading manufacturer of CNC gear machine tools, we provides precision equipment essential for producing gears and assembling gear transmission systems. These solutions power critical applications in diverse industrial sectors including marine engineering, automotive & motorcycle manufacturing, agricultural machinery, machine tool production, construction equipment, rail transportation, material handling systems, metallurgy, power generation, petrochemical operations, home appliances, and precision instrumentation. Through cutting-edge technology and engineering expertise, we drive mechanical innovation that propels industries forward.

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关于我们

ABOUT US

宜昌长机科技有限责任公司始建于1968年，是由原机械工业部重点骨干企业长江机床厂发展而来。公司先后荣获国家级高新技术企业、国家级单项冠军培育企业、国家级制造业单项冠军产品、国家级“专精特新”重点小巨人企业、国家知识产权示范企业、全国模范职工之家、工信部智能制造优秀场景、5G工厂及湖北省文明单位、湖北省工业先进企业、标准化良好行为企业、长江质量奖提名奖、湖北省制造业单项冠军企业、首届“湖北精品”机床、湖北省智能制造试点示范企业等殊荣。公司现有员工500余人，总资产10亿余元，银行资信AAA级，占地22万平方米（330亩），其中厂房建筑面积13万平方米。

公司技术中心被认定为国家级工业设计中心、湖北省优秀企业技术中心、湖北省工程技术中心、湖北省企校联合创新中心。公司通过精密化、数控化、复合化、智能化及互联互通的技术创新，致力于覆盖全产业链的齿轮加工解决方案。

Yichang Changjiang Machine Technology Co., Ltd. (Abbr.: CJMT), was established in 1968 and originated from the Changjiang Machine Tool Factory, a key backbone enterprise of the former Ministry of Mechanical Industry. Over the years, the company has been honored with numerous prestigious titles, including National High-Tech Enterprise, National Single Champion Cultivation Enterprise, National Manufacturing Single Champion Product, National “Specialized and Innovative” Key Little Giant Enterprise, National Intellectual Property Demonstration Enterprise, National Model Workers' Home, MIIT Intelligent Manufacturing Excellence Award, 5G-enabled Factory, Hubei Province Civilized Unit, Hubei Province Advanced Industrial Enterprise, Standardization Good Behavior Enterprise, Yangtze River Quality Award Nomination, Hubei Province Manufacturing Single Champion Enterprise, First “Hubei Premium” Machine Tool, and Provincial Intelligent Manufacturing Pilot Demonstration Enterprise. The company currently employs over 500 staff members, has total assets exceeding 1 billion yuan, holds an AAA bank credit rating, and occupies a total area of 220,000 ㎡ (330 mu), including 130,000 ㎡ of factory building area.

CJMT’s Technology Center has been recognized as a National Industrial Design Center, Hubei Province Outstanding Enterprise Technology Center, Hubei Province Engineering Technology Center, and Hubei Province Industry-Academia Joint Innovation Center. Through technological innovations in precision, CNC, multifunctional, intelligent, and interconnected technologies, the company is committed to providing comprehensive gear processing solutions across the entire industrial chain.

发展简史
BRIEF HISTORY

长机科技在插齿机不断提档升级，市场占有率稳居国内第一的基础上，产品逐步拓展到滚齿机、铣齿机、刮齿机、磨齿机等，已然发展成为国内系列化最全的齿轮机床研制企业。

On the foundation of continuously upgrading its gear shaping machines, and securing the top market share in China, CJMT has gradually expanded its product range to include hobbing machines, milling machines, skiving machines, grinding machines, and more. As a result, the company has developed into the nation's most comprehensive manufacturer of serialized gear machine tools.

1968年

10月26日，国家计划委员会批准筹建长江机床厂。

1975年

1.Y5132插齿机研制成功。
2.研制出中国首台大型插齿机Y51250，经洛矿704工厂试切合格，挡住进口。

1984年

φ200/320/500/800/1250/2500等不同规格插齿机形成系列化生产。

1997年

1.宜昌长江机床有限责任公司成立。
2.YK5612A数控齿扇插齿机研制成功，国产数控系统成功应用于插齿机。

2002年

1.中国首台数控梳槽机ZX300A上市，打破了国际封锁。
2.YKM51250大型精密数控插齿机研制成功，打破国际封锁，荣获国家级重点新产品。

2004年

1.公司被湖北省科技厅认定为湖北省高新技术企业。
2.宜昌长机科技有限责任公司成立。

2008年

1.YK5180BX3机床出口德国。
2.YK51160X3机床出口奥地利。
3.YKT5180提拉式数控插齿机荣获国家重点新产品。

2012年

1.被认定为国家火炬计划重点高新技术企业。
2.宜长注册商标荣获“中国驰名商标”称号。
3.首台大型滚齿机YK31350研制成功。
4.YK5150DX3机床出口美国。

2014年

1.成功研制YGX5112高精度小模数插齿机，精度达国标5级。
2.YK83系列铣齿机形成系列化生产。

2016年

1.首台万能数控插齿机YKW5165上市。
2.YK3180A数控滚齿机研发成功，滚齿机实现系列化生产。
3.公司获得由工业和信息化部、中国工业经济联合会授予的“2017-2019年度制造业单项冠军培育企业”。

2018年

1.公司荣获“湖北省支柱产业细分领域隐形冠军示范企业”。
2.YK8132强力刮齿机研制成功。

2019年

1.YK3620、YK3650数控卧式滚齿机研制成功并交付客户。
2.YK83400机床出口越南。

2020年

1.荣获第八届长江质量奖提名奖。
2.YK8150数控刮齿机研制成功。
3.YK31600数控滚齿机研制成功。
4.YKC5150H机床出口土耳其。

2021年

1.YGX5112A插齿机出口韩国。
2.高端齿轮加工装备工业设计中心被确定为第五批“国家级工业设计中心”。
3.被湖北省经济和信息化厅确定为第四批“省级服务型制造示范企业”。

2022年

1.YK83600铣齿机出口越南。
2.公司两化融合贯标，“两化融合管理体系”通过中国船级社认证。
3.数控插齿机被工业和信息化部、中国工业经济联合会授予第七批“单项冠军产品”称号。

2023年

1.被湖北省经济和信息化厅办公室评为“第三批湖北省上云标杆企业”。
2.SAP项目启动，深入数字转型。
3.YKH5132H、YKH5150N、YK8150数控齿轮机床批量出口海外。

2024年

1.新产品YKC3650数控卧式滚齿机、YKCW51250万能数控插齿机、YKY51250液压冲程数控插齿机、YKCW51160万能数控插齿机、YK8132A数控刮齿机研制成功。
2.被湖北省经济和信息化厅评为“湖北省制造业单项冠军企业”。
3.“YK7832数控强力齿扇磨齿机”获中国数控机床展览会CCMT2024春燕奖。

2025年

1.YK7232数控蜗杆砂轮磨齿机研制成功。
……

环境优美
FRIENDLY ENVIRONMENT

“环境是生存的根本，是生命质量的重要组成部分”。公司致力于打造一个绿色、健康且富有亲和力的工作环境，将环保理念融入日常运营的每一个环节。从厂区规划到生产流程，我们严格执行ISO14001环境管理体系，最大化地进行绿化美化，科学合理布局，营造出既有利于员工身心健康又能激发创新思维的空间。通过实施全面的节能减排措施，优化资源配置，减少浪费，我们不仅降低了对环境的影响，还提升了公司的美誉度和社会责任感。长机科技不仅是一个高效的生产基地，更是一个充满生机与活力的绿色家园。

世纪钟

日晷

公司全景

"The environment is fundamental to survival and a key part of life quality". We're dedicated to creating a green, healthy, and inviting workplace. We integrate environmental protection into every aspect of our operations, following the ISO14001 standard. From site planning to production, we maximize greening and adopt a scientific layout to foster a space that benefits employees' well-being and spurs innovation. Through comprehensive energy - saving and emission - reduction steps, we optimize resource use, cut waste, lessen our environmental footprint, and enhance our reputation and social responsibility. CJMT stands not merely as an efficient manufacturing powerhouse, but evolves into a thriving green habitat where industrial precision converges with ecological vitality.

春之韵

夏之美

秋之彩

焰之舞

爱国琴

清空亭

智慧之花

以奋斗者为本
STRIVER-CENTRIC PHILOSOPHY

“企业是员工生存所依，更是员工的精神家园，厚待员工就是厚待公司的未来”。长机科技始终认同员工都是公司最宝贵的财富，尊重和充分发挥员工的创造力与潜力。我们注重对人的尊重与关爱，鼓励互动交流，以奋斗者为本，实施动力式管理，激发员工的最大主观能动性，致力于让每位员工快乐工作，并建立一支高度团结且精炼的员工队伍。

机床行业的发展依赖于长期的经验积累和专业积淀。我们采用全员合同制，期望优秀的员工能够终身或长期服务于公司，并通过荣誉授予制度对为公司做出杰出贡献的人才进行奖励，以此激励员工追求技术上的卓越与工作中的敬业精神。我们的目标是培养一批在社会和行业内具有较大影响力的专业人才队伍，推动技术创新与品质提升。

The enterprise is the foundation of employees' livelihoods and also their spiritual home. Treating employees well means nurturing the company's future." CJMT consistently regards employees as its most valuable asset, respecting and fully leveraging their creativity and potential. We emphasize respect and care for individuals, encourage interactive communication, implement motivational management centered on strivers, stimulate employees' maximum initiative, and strive to ensure every employee works happily while building a highly united and elite workforce.
The development of the machine tool industry relies on long-term accumulated experience and professional expertise. We adopt a company-wide contract system, expecting outstanding employees to serve the company lifelong or long-term. Through an honor-awarding system, we recognize talents who make exceptional contributions to the company, thereby motivating employees to pursue technical excellence and professional dedication. Our goal is to cultivate a team of highly influential professionals in both society and the industry, driving technological innovation and quality enhancement.


拔河比赛

公司交车仪式


入职大学生谢师仪式


职工篮球场


精致餐厅


员工自助餐


三八妇女节表彰仪式


人才公寓

人才代表（部分）
REPRESENTATIVE TALENTS (PARTIAL)


智通兵
全国劳动模范
享受国务院特殊津贴
全国五一劳动奖章
全国技术能手
湖北省首席技师
湖北省楚天名匠


袁勇
享受国务院特殊津贴
全国五一劳动奖章
全国机械工业劳动模范
全国机械工业百名工匠
湖北省技术能手
荆楚工匠


杨光
享受国务院特殊津贴
楚天技能名师
湖北省首席技师


唐兆庆
享受国务院特殊津贴


陈保军
全国五一劳动奖章
湖北省劳动模范


游军
全国五一劳动奖章
湖北五一劳动奖章


钟瑞龄
享受省政府专项津贴


王维
享受省政府专项津贴


吴林冲
湖北省首席技师
湖北省技术能手
荆楚工匠

以客户为中心的闭环质量管理体系

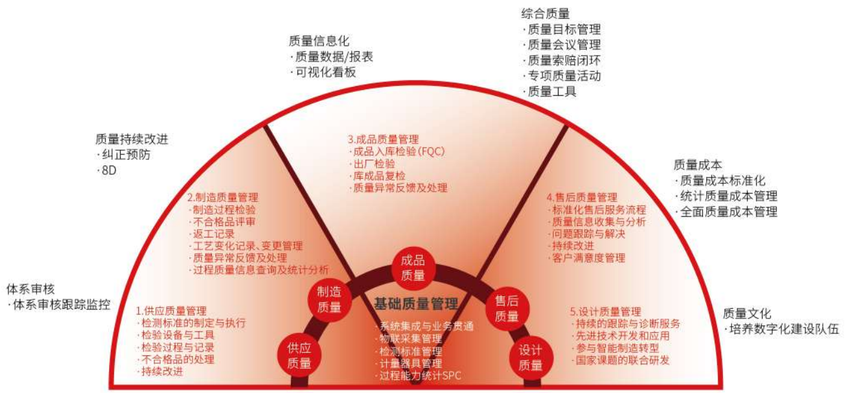
CUSTOMER-CENTRIC CLOSED-LOOP QUALITY MANAGEMENT SYSTEM

客户满意是我们永恒的追求。公司确立“质量是企业和员工共同的尊严”、“优越的性能和可靠的品质是产品竞争力的关键”的质量理念。遵循全面质量管理原则，强调预防、经济、协作及PDCA循环的工作方法和卓越绩效管理模式，秉持“追求卓越，持续创新质量环境安全健康管理；务实求精，强力推进与利益相关方和谐发展”的管理方针，建立以客户为中心的闭环质量管理体系，推动企业高质量发展 。

从原材料入库到成品出库，我们实施严格的全过程质量控制体系，应用自检、互检、专检、首检、巡检、末检等多种检测方式。产品试验中心配备了先进的测试设备和技术，能够模拟实际使用环境进行性能测试，保障产品的高质量水平。

公司设立社会责任部，推动全员参与的质量管理，致力于在未来十年内打造出“卓越级”质量管理能力。

Customer satisfaction is our eternal pursuit. Our company upholds the quality philosophy that "quality is the dignity of both the enterprise and its employees" and that "superior performance and reliable quality are crucial for product competitiveness." Adhering to Total Quality Management principles, we emphasize preventive measures, economic efficiency, collaboration, and the PDCA cycle methodology alongside an excellence performance management model.
Our management policy advocates pursuing excellence and continuously innovating in quality, environmental, safety, and health management while being pragmatic and striving for precision to promote harmonious development with stakeholders. We have established a customer-centric closed-loop quality management system aimed at driving high-quality corporate growth.
From raw material intake to finished product delivery, we implement a stringent full-process quality control system utilizing various inspection methods such as self-inspection, mutual inspection, specialized inspection, initial inspection, patrol inspection, and final inspection. Our Product Testing Center is equipped with advanced testing equipment and technology, capable of simulating real-world usage environments for performance testing, ensuring high-quality standards.
The establishment of our Corporate Social Responsibility Department encourages participation from all employees in quality management. We are committed to developing "excellence-level" quality management capabilities within the next decade.



公司质量管理架构图

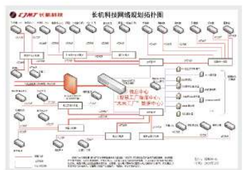
数字赋能

Digital Transformation for Enhanced Efficiency

公司通过构建数字化制造系统集成平台，将数字化技术与工艺优化、生产管理和质量控制等核心领域相结合，实现了生产过程的全面优化与智能化管理。公司利用企业资源计划管理系统（ERP）、产品生命周期管理系统（PLM）、供应商关系管理系统（SRM）、企业生产过程执行管理系统（MES）、仓储管理系统（WMS）和高级计划与排程管理系统（APS），实现从计划输入到任务分配、数控程序管理等环节的信息数据共享，提升车间物流数字化集成水平。通过在线监测平台实时监控机床状态及制造过程，确保高效生产。

公司适时应用柔性自动化系统（FMS），增强信息和数据互融共享能力，实现三维可视化装配指导，显著提高装配质量和效率，并通过ERP系统实现业财融合。

By integrating digital manufacturing systems, we combine digital technology with process optimization, production management, and quality control, achieving comprehensive optimization and intelligent management in production processes. Leveraging ERP, PLM, SRM, MES, WMS, and APS systems, we facilitate information and data sharing from planning inputs to task assignments and CNC program management, enhancing digital integration levels within workshop logistics. Real-time monitoring platforms oversee machine tool statuses and manufacturing processes, ensuring efficient production. Utilizing Flexible Manufacturing Systems (FMS), we strengthen information and data interoperability, provide 3D visualized assembly guidance, significantly improve assembly quality and efficiency, and achieve industry-finance integration through the ERP system.



卓越应用 全球信赖

EXCELLENCE IN APPLICATION, GLOBALLY TRUSTED

作为齿轮机床领域的领军者，我们的产品深度赋能高端装备制造与工业发展，累计为全球客户成功交付超过10,000台高精度齿轮机床。产品广泛应用于：

先进制造：船舶、轨道交通、智能农机、机器人；

工业基石：工程机械、冶金重工、起重运输、精密仪器仪表；

能源动力：清洁能源发电、电力系统、石油化工核心设备；

民生经济：汽车摩托车制造、家用电器、港口物流及现代化交通体系。

As a leader in gear machine tools, our products deeply empower high-end equipment manufacturing and industrial development, with over 10,000 high-precision machines delivered globally. Applications include:
Advanced Manufacturing: Ships, rail transit, smart agricultural machinery, robotics.
Industrial Foundation: Construction machinery, metallurgical heavy industry, lifting and transportation, precision instruments.
Energy & Power: Clean energy, power systems, core equipment for petrochemicals.
Livelihood Economy: Automotive and motorcycle manufacturing, home appliances, port logistics, modern transportation systems.

集成研发

INTEGRATED PRODUCT DEVELOPMENT

长机科技坚持以用户需求驱动的“自主研发为主、合作开发为辅，完整高效的集成研发模式（IPD）”，以帮助公司准确把握行业发展趋势，深刻理解市场需求和客户需求，保证公司的产品研发围绕真实需求来展开，有效驱动产品的改进创新和升级换代，保持公司产品的核心竞争优势。

CJMT adopts a demand - driven R & D model. It focuses on independent innovation while collaborating with others, and uses an efficient IPD. This helps our company grasp industry trends and market needs, ensuring R & D is practical and drives product innovation and upgrades.

产学研用合作

Industry-University-Research Collaboration

公司构建与高校、科研单位、专业机构等多渠道的合作研发体系，持续加强与华中科技大学、湖北工业大学、河南科技大学、兰州理工大学、三峡大学等高等院校合作，推进齿轮机床的技术研究和人才培养，共同推动齿轮机床行业的进步。

CJMT integrates various resources to build a multi-channel cooperative R&D system with universities, research institutes, professional organizations, etc. We will continue to strengthen cooperation with prestigious universities such as Huazhong University of Science and Technology, Hubei University of Technology, Henan University of Science and Technology, Lanzhou University of Technology, and China Three Gorges University, to promote the technological research and talent cultivation in gear machine tools, and jointly advance the progress of the gear machine tool industry.

核心技术

Core Technology

公司专注于齿轮机床核心技术的研发，针对齿轮加工的特殊需求，坚持自主研发和制造关键部件，持续提升产品市场竞争力。我们拥有一支由百余名专业研发人员组成的团队，持有130余项自主知识产权专利，其中发明专利40余项。近年来，公司成功开发并应用了300余项新技术和新工艺，推出10余项国家级、省级新产品。公司是机床行业国家标准的主要起草单位之一，已起草并参与制定国家标准和行业标准40余项。

CJMT focuses on the R&D of core technologies for gear machine tools, insisting on independent research, development, and manufacturing of key components tailored to the specific requirements of gear processing, thereby continuously enhancing the market competitiveness of our products.We have a team of over 100 professional R&D personnel, holding more than 130 patents with independent intellectual property rights, including over 40 invention patents. In recent years, the company has successfully developed and implemented more than 300 new technologies and processes, launching over 10 national and provincial-level new products.As one of the primary drafting units for national standards in the machine tool industry, we have drafted and participated in formulating more than 40 national and industry standards.

● 电子螺旋导轨技术

Electronic Helical Guide Technology

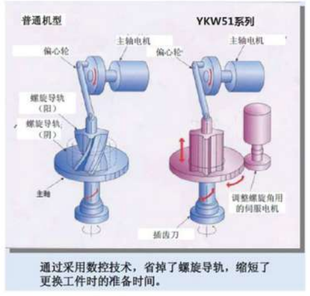
与传统的机械导轨相比，电子螺旋导轨技术具备以下优势：

1、无需更换导轨，通过CNC即可实现任意角度螺旋齿轮的加工；

2、产品换型便捷，新品开发周期更短；

3、具备螺旋角校正功能，工件热处理变形补偿功能，产品精度更高。

Compared with traditional mechanical guides, electronic helical guide technology offers the following advantages:
1. No need to replace the guide,CNC enables the machining of helical gears at any angle.
2. Convenient product changeovers, shorter development cycles.
3. Equipped with a helix angle correction function to compensate for workpiece thermal deformation, ensuring higher product accuracy.



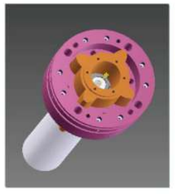
通过采用数控技术，省掉了螺旋导轨，缩短了更换工件时的准备时间。

● 静压刀架体技术

Hydrostatic Tool Post Technology

通过刀轴与刀轴套之间的精密间隙控制产生液压油膜厚度，依靠油膜的刚度保证刀轴在刀架体中的几何精度。该技术提高了插齿机刀轴部件的冲程速度，平均冲程速度可达65m/min及在高速状态下的精度稳定性和可靠性，应用于全系列圆柱齿轮插齿机。

By precisely controlling the gap between the tool spindle and its sleeve in the gear shaping machine's tool post, a hydraulic oil film of specific thickness is generated. The stiffness of this oil film ensures the geometric accuracy of the tool spindle within the tool post. This technology enhances the stroke speed of the tool spindle assembly, achieving an average stroke speed of up to 65 m/min, while maintaining stability and reliability at high speeds. It is applied across the full range of cylindrical gear shaping machines.

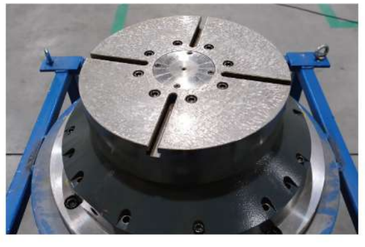


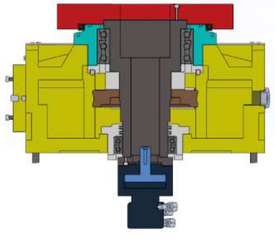
● 轴承工作台技术

Bearing Worktable Technology

中小型数控插齿机中，工件旋转轴（工作台）采用主轴轴承定位、支撑，以取代传统的锥孔定位结构，用滚动代替滑动，运动阻力小，旋转精度高，精度保持性好，更好地满足高速旋转的要求，且使用寿命更长。

In medium and small-sized CNC gear shaping machines, the workpiece rotation axis (worktable) is positioned and supported by spindle bearings, replacing the traditional tapered hole positioning structure. By using rolling instead of sliding, this technology reduces motion resistance, achieves high rotational accuracy, and ensures excellent precision retention. It better meets the demands of high-speed rotation while offering a longer service life.





精密静压工作台技术

Precision Hydrostatic Worktable Technology

大型机床的回转工作台由于负载很大，均采用了卸荷装置，当负载变化大时，通常需要手动调整。静压工作台能根据负载变化自适应调节：当工作台负载发生变化时，布置于油腔里面的电涡流位移传感器发出位移变化信号，反馈至液压伺服动力与压力比例阀控制器，实现对泵输出流量的控制，从而实现工作台的自适应调节。

针对中大型插齿机、滚齿机、铣齿机等机床，工件旋转轴（工作台）采用静压工作台技术，以取代传统的锥孔定位结构。静压工作台具有运动阻力小、功率消耗小、速度范围广、承载能力大、旋转精度高、使用寿命长等优点。

For large gear machine tools, the rotary worktables are equipped with load-relief devices due to their heavy loads. When load variations are significant, manual adjustment is typically required. Hydrostatic worktables can self-adapt to load changes: When the worktable load varies, eddy current displacement sensors installed in the oil chambers detect positional changes and transmit signals to the hydraulic servo power and pressure proportional valve controller, which regulates pump output flow to achieve adaptive adjustment of the worktable.

For medium to large gear shaping machines, gear hobbing machines, gear milling machines, and similar machine tools, the work-piece rotation axis (worktable) adopts hydrostatic worktable technology to replace traditional taper hole positioning structures. Hydrostatic worktables offer advantages including low motion resistance, reduced power consumption, wide speed range, high load capacity, superior rotational accuracy, and extended service life.

● 无间隙传动技术

Zero-Clearance Transmission Technology

差齿消隙技术：滚铣刀架主运动采用大功率主轴伺服电机驱动，经过高精度齿轮副传至滚铣刀架主轴，滚铣刀架主轴末端传动齿轮采用大直径差齿消隙结构，完全消除传动间隙，保证机床加工有足够的刚性、抗振动性和精度的保持性。（专利技术）

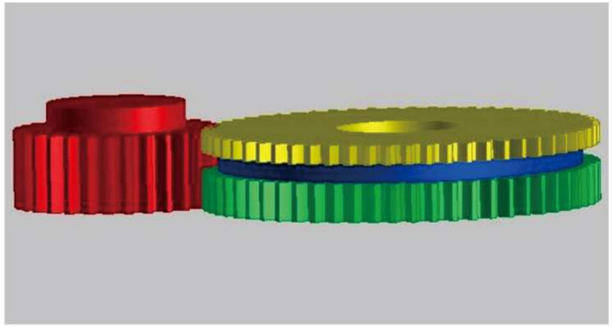
双蜗轮副消隙：大型工作台中采用双蜗轮蜗杆技术消除蜗轮副传动间隙，保障高效、高精加工。

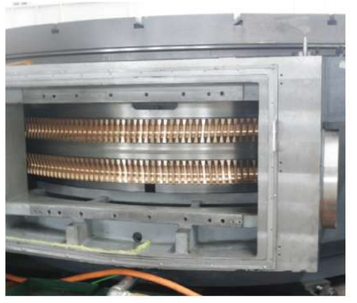
导轨消隙：镶钢导轨与滚动体相结合，确保重型机床切削过程中直线轴运动无间隙。

Differential Gear Backlash Elimination:The main motion of the hobbing tool post is driven by a high-power spindle servo motor and transmitted through a high-precision gear pair to the hobbing tool post spindle. The end transmission gear of the hobbing tool post spindle adopts a large-diameter differential gear backlash elimination structure, completely eliminating transmission clearance. This ensures sufficient rigidity, vibration resistance, and precision retention during machining. (Patented technology)

Dual Worm Gear Backlash Elimination:In large worktables, dual worm gear technology is used to eliminate backlash in the worm gear transmission, ensuring efficient and high-precision machining.

Guide Rail Backlash Elimination:Steel-inserted guide rails are combined with rolling elements to ensure zero backlash in the linear axis motion during the cutting process of heavy-duty machine tools.



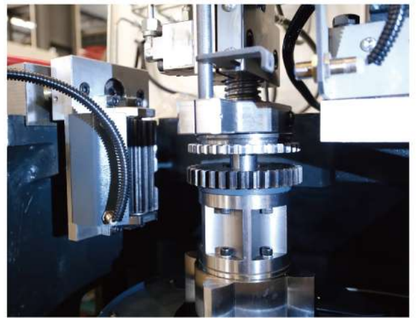


大/小行程自动调整技术

Large/Small Stroke Automatic Adjustment Technology

通过数字控制技术与伺服调整机构，实现数控插齿机的大、小行程自动调整，极大的降低了人工调整的劳动强度。

Through digital control technology and servo adjustment mechanisms, automatic adjustment of large and small strokes in CNC gear shaping machines is achieved, significantly reducing the labor intensity of manual adjustments.

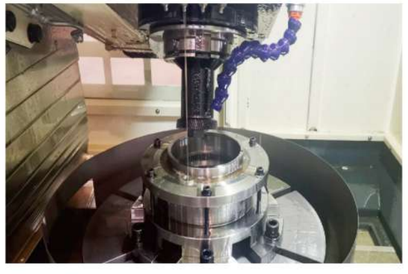


力矩电机直驱控制技术

Direct-Drive Torque Motor Control Technology

在电子螺旋导轨插齿机、刮齿机等机床中，使用多个力矩电机直接驱动，使主轴的回转精度和同步精度更高，齿轮加工精度可达GB5级。该技术获得了发明专利“多轴同步误差控制技术”。

In machine tools such as electronic helical guide gear shaping machines and skiving machines, multiple torque motors are used for direct drive. This achieves higher rotational accuracy and synchronization precision of the spindle, enabling gear machining accuracy to reach GB5 standards. The technology has been awarded an invention patent for “Multi-Axis Synchronous Error Control Technology.”



自动上下料技术

Automatic Loading and Unloading Technology

能够提供单机自动化（料仓）、桁架、关节机器人及自动化产线组线等解决方案，并对工件装夹接口进行了标准化，减少换型时间，最大效率提升客户价值。

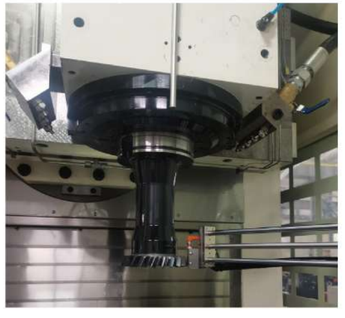
We provide solutions for single-machine automation (material bins), gantry systems, articulated robots, and automated production line integration. Standardized workpiece clamping interfaces have been implemented to reduce changeover time, maximizing efficiency and enhancing customer value.

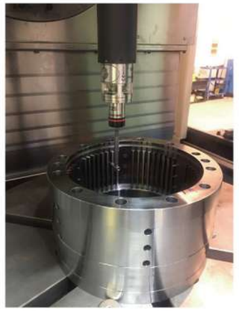
自动对齿技术

Automatic Gear Tooth Alignment Technology

通过使用测头或非接触式开关，在数控插齿机、数控刮齿机等高效机床上，实现自动对齿功能，可满足粗精组合加工、硬齿面加工等需求。

By using probes or non-contact switches on high-efficiency CNC gear shaping machines and CNC skiving machines, automatic gear tooth alignment functionality is achieved. This meets the requirements of roughing and finishing combined machining, as well as hard gear surface machining.





刮齿机圆柱刀加工技术

Cylindrical Cutter Machining Technology for Skiving Machines

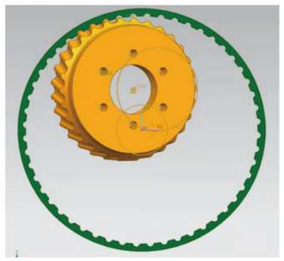
开发了专用的圆柱刀、刮齿刀加工工艺软件，可实现无后角圆柱刀加工，与传统的圆锥刀相比，具备以下优势：

1、圆柱刀可修磨次数更多，加工成本更低；

2、圆柱刀修磨前后齿形精度一致性好，机床参数无需调整；

3、工件齿形加工精度保持性好，特别适合RV减速机针齿壳圆弧齿加工。

We have developed specialized software for cylindrical cutter and skiving tool machining processes, enabling the machining of cylindrical cutters without a relief angle. Compared to traditional conical cutters, this technology offers the following advantages:
1. Cylindrical cutters can be reground more times, reducing machining costs.
2. The gear profile accuracy of cylindrical cutters remains consistent before and after regrinding, eliminating the need for machine parameter adjustments.
3. Workpiece gear profile machining accuracy is highly stable, making it especially suitable for machining the arc teeth of RV reducer needle shells.

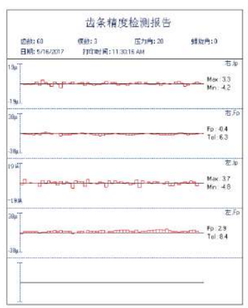


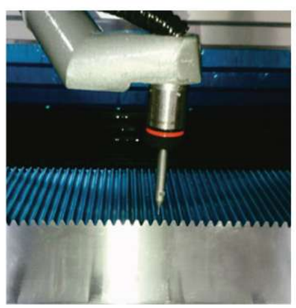
在线检测技术

Online Detection Technology

集成数字测头于数控系统二次开发，实现在线检测功能，用于检测齿距偏差与齿距累积。检测结果与三坐标检测精度吻合，齿距测量偏差1-2μm。

By integrating digital probes into the CNC system through secondary development, in-process monitoring functionality is achieved for real-time inspection of pitch deviation and cumulative pitch errors. The inspection results align with coordinate measuring machine (CMM) accuracy, with a pitch measurement deviation of 1-2 μm.



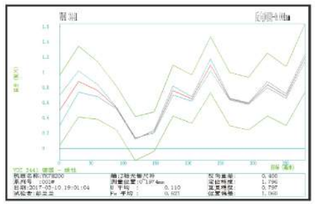


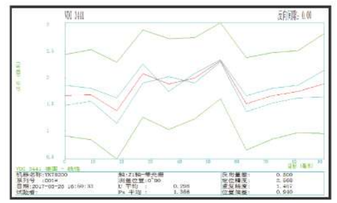
高精度光栅尺控制技术

High-Precision Grating Scale Control Technology

通过高精度光栅尺控制技术的调整与优化，数控磨齿机实现了砂轮修整轴(Z1轴)的定位精度2.5μm，重复定位精度1.5μm；砂轮修整轴(Y1轴)的定位精度1.7μm，重复定位精度0.8μm；工作台（Y轴）全长2000mm，定位精度4.3μm，重复定位2.7μm。

Through the adjustment and optimization of high-precision grating scale control technology, CNC gear grinding machines achieve the following precision levels:
- Positioning accuracy of the grinding wheel dressing axis (Z1 axis): 2.5 μm, with a repeatability positioning accuracy of 1.5 μm.
- Positioning accuracy of the grinding wheel dressing axis (Y1 axis): 1.7 μm, with a repeatability positioning accuracy of 0.8 μm.
- Positioning accuracy of the worktable (Y axis) over a full length of 2000 mm: 4.3 μm, with a repeatability positioning accuracy of 2.7 μm.



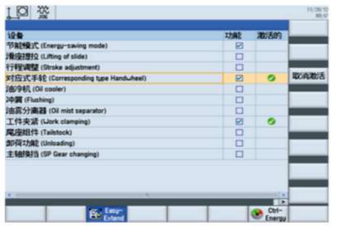


齿轮加工软件开发技术

Gear Manufacturing Software Development Technology

依托数控技术开发人员的探索和努力，独立开发设计了具有自主知识产权的“嵌入式齿轮加工工艺软件”系统，在实现操作人性化的同时，最大程度满足用户个性化零件的加工，内置“节能模式”、“断电记忆”等功能。

Through the exploration and efforts of our CNC technology development team, we have independently designed an "Embedded Gear Machining Process Software" system with proprietary intellectual property rights. This system achieves user-friendly operation while meeting the machining needs of customized parts to the greatest extent. Built-in functions such as "Energy-Saving Mode" and "Power-Off Memory" further enhance usability.

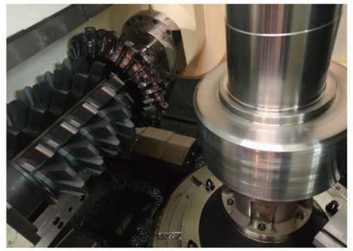


● 滚铣复合工艺技术

Hobbing-Milling Compound Machining Technology

在一台机床上同时安装滚刀、铣刀，利用自主研发的专用控制软件，一次装夹即可实现铣齿、滚齿工序的复合，完成大型精密齿轮的加工。提高加工效率的同时降低了加工成本。(国内首创)

By simultaneously installing hobs and milling cutters on a single machine tool and leveraging our self-developed specialized control software, compound processes such as gear milling and hobbing can be completed in one setup, automatically achieving the machining of large precision gears. This innovation improves machining efficiency while reducing costs. (A domestic first)

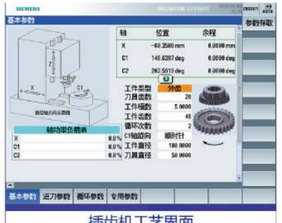


● 智能化数控系统

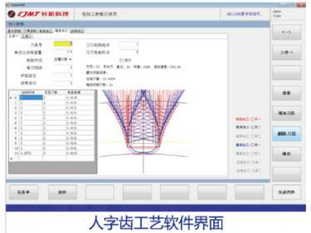
Intelligent CNC System

结合不同功能需求，自主研发HMI界面，设计易操作、易维护的人机界面，弱化不同数控系统的差异，降低使用操作的专业要求；对数控系统进行二次开发，具有参数化编程设置、加工选择设置、齿轮智能啮合设置、工件尺寸温度补偿、特殊齿轮加工等功能，显著提高机床应用能力。

Tailored to different functional requirements, our self-developed HMI interface is designed for ease of operation and maintenance, minimizing differences between various CNC systems and lowering the professional skill requirements for operation. Through secondary development of the CNC system, features such as parametric programming, machining selection settings, intelligent gear meshing settings, workpiece size temperature compensation, and special gear machining are enabled, significantly enhancing the machine's application capabilities.



插齿机工艺界面



人字齿工艺软件界面

● 刮齿复合加工工艺技术

Skiving Compound Machining Technology

在刮齿机上安装刀库，并配置车刀、粗精刮齿刀、倒角刀等，结合工业机器人和自动化产线，借助自主研发的专用软件，一次装夹即可实现齿轮的车削、粗刮齿、精刮齿、倒角等复合加工，实现刮齿工艺的智能化加工，自动完成精密齿轮的一体化加工，进一步提高加工效率和质量。

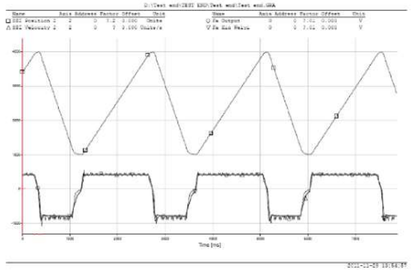
By equipping skiving machines with tool magazines and configuring turning tools, roughing and finishing skiving cutters, chamfering tools, and more, combined with industrial robots and automated production lines, our self-developed specialized software enables compound machining processes such as turning, rough skiving, finish skiving, and chamfering in a single setup. This achieves intelligent skiving processes, automatically completing integrated precision gear machining, further improving machining efficiency and quality.

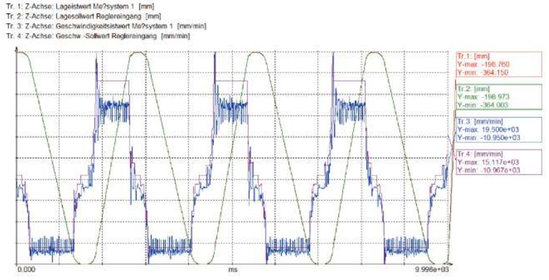
● 液压直驱控制技术

Hydraulic Direct Drive Control Technology

液压直驱伺服控制技术整合液压与数控系统，提升响应速度和智能化，避免指令延迟导致的精度损失和过冲现象。通过优化高频换向比例伺服阀组控制原理，改进阀芯设计，采用多层先导级闭环控制，实现伺服油缸快速精准换向。该技术兼容制齿专家系统，支持智能管控，显著提升系统性能与稳定性。

Integrating hydraulics with CNC systems, hydraulic direct drive servo control technology enhances response speed and intelligence, preventing precision loss and overshooting caused by command delays. By optimizing the control principle of high-frequency reversing proportional servo valve banks, improving spool design, and employing multi-layer pilot closed-loop control, this technology achieves rapid and precise directional changes in servo cylinders. Compatible with gear manufacturing expert systems, it supports intelligent management and control, significantly enhancing system performance and stability.





● 联动轴切换技术

Linked Axis Switching Technology

在卧式滚齿机上应用联动轴选择与切换技术，可使窜刀运动Y轴与B、C、Z轴联动，实现滚齿的同时刀具均匀窜刀，消除加工长花键轴时刀具磨损对工件精度的影响。

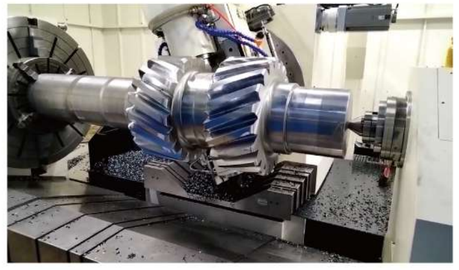
Applied on horizontal gear hobbing machines, the linked axis selection and switching technology enables the tool feed motion Y-axis to work in conjunction with the B, C, and Z axes. This allows for uniform tool feed during hobbing, eliminating the impact of tool wear on workpiece machining accuracy when processing long spline shafts.

● 人字齿自动对中加工技术

Automatic Centering Technology for Herringbone Gears

卧式滚齿机具有人字齿自动对中加工技术，可自动测量加工人字齿工件的基准中心，与数控系统中建立的中心坐标点进行自动比对校正，实现人字齿自动对中加工。

Horizontal gear hobbing machines feature automatic centering technology for herringbone gears. This technology automatically measures the reference center of the herringbone gear workpiece and compares it with the center coordinate point established in the CNC system for automatic correction, enabling automatic centering during the machining of herringbone gears.



● 远程维护服务技术

Remote Maintenance Service Technology

公司通过云平台对机床使用过程多维数据远程采集，采用先进检测技术和机床整机可靠性快速试验、优化技术，实现数据实时监控、分类汇总、模块化分析，实现数控机床故障高效的监控、分析和解决，从而改善客户对机床的使用体验、提高良品率、减少加工损伤和意外停机，提高机床的可靠性性能和使用效率。

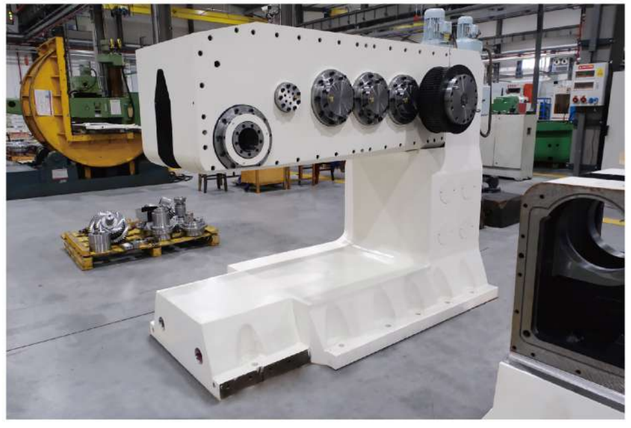
Our company utilizes a cloud platform to remotely collect multidimensional data during the use of machine tools. With advanced detection technologies and rapid testing and optimization techniques for machine reliability, we achieve real-time monitoring, classification, summary, and modular analysis of data. This facilitates efficient monitoring, analysis, and resolution of CNC machine faults, thereby improving customer experience, increasing good product rates, reducing machining defects and unexpected downtime, and enhancing the reliability and efficiency of machine tools.

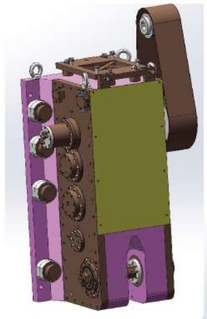
高精度滚铣刀架设计

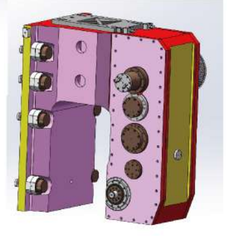
High-Precision Hob Cutter Head Design

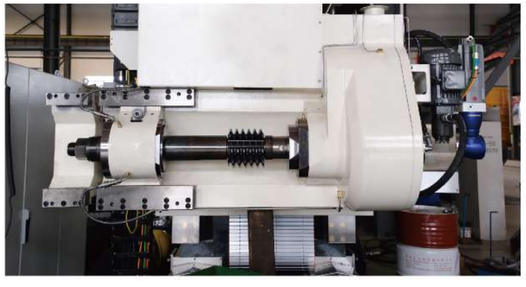
铣刀架采用大功率变频电机，采用高精度斜齿轮传动，液压柔性全消隙结构，完全消除传动间隙；滚刀架采用大功率水冷主轴伺服电机，滚刀主轴末端传动齿轮采用大直径少齿差消隙结构，完全消除传动间隙。保证机床加工有足够的刚性、抗振动性和精度的稳定性。

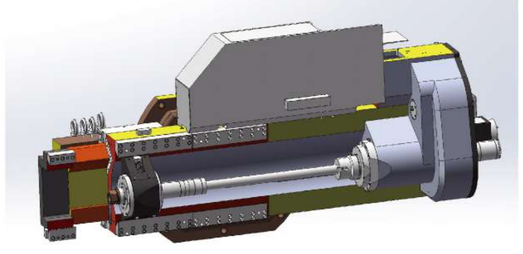
The milling cutter head adopts a high-power variable-frequency motor, high-precision helical gear transmission, and hydraulic flexible full-backlash elimination structure, completely eliminating transmission backlash. The hob cutter head employs a high-power water-cooled spindle servo motor, with the transmission gear at the hob spindle end adopting a large-diameter few-teeth-difference backlash elimination structure, fully eliminating transmission backlash. This ensures the machine tool possesses sufficient rigidity, vibration resistance, and stability of machining accuracy.











直线轴高精度传动系统

High-Precision Linear Axis Transmission System

采用高精度滚珠丝杠实现直线运动，并通过高精度光栅尺进行位置反馈，实时补偿滚珠丝杠由于热变形、磨损等带来的机械误差，实现全闭环精准控制，从而大幅度提高运动精度和稳定性，同时降低维护成本，提高生产效率。

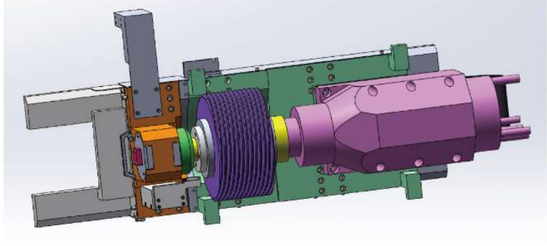
This system employs high-precision ball screws for linear motion and utilizes high-precision grating scales for position feedback, compensating in real-time for mechanical errors caused by thermal deformation and wear. This achieves full closed-loop precise control, significantly improving motion accuracy and stability while reducing maintenance costs and enhancing production efficiency.

刀架、工作台直驱主轴

Direct Drive Spindle For Cutter Head and Worktable

刀具回转主轴和工作台回转主轴采用直驱技术，实现动力源对机床工作部件的直接驱动。通过对轴与电机转子过盈量的合理控制、支承轴承的合理选用、主轴冷却系统、主轴单元的动平衡与系统参数的合理匹配，提高机床动态灵敏度和工作可靠性，满足机床高速、高精加工要求。

Both the rotating spindle for the cutter and the rotating spindle for the worktable employ direct drive technology, enabling the power source to directly drive the working components of the machine tool. By reasonably controlling the interference fit between the shaft and the motor rotor, appropriately selecting support bearings, implementing spindle cooling systems, and properly matching dynamic balancing of the spindle unit and system parameters, we enhance the dynamic sensitivity and operational reliability of the machine tool, meeting the demands for high-speed and high-precision machining.



匠心制造
MANUFACTURING

五十多年 坚持匠心制造
Half a Century of Devotion

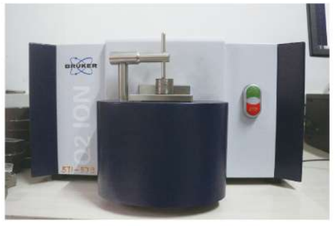
我们拥有完整的工艺工序制造能力、完善的过程质控体系及完备的加工装配厂房，拥有各类先进的加工设备500余台套，数控化率90%以上，其中瑞士、德国、美国、英国、捷克等进口精密设备70余台套，国内一流厂家的精密设备100余台套。强大的加工、检测能力涵盖机床铸件、钢件、铜件、钣金件等所有自制零件的粗、半精加工以及精加工，以充分满足客户个性化定制以及特殊交货期的要求。

We possess comprehensive manufacturing capabilities, a robust process quality control system, and fully equipped machining and assembly facilities. We have over 500 advanced processing machines, with a CNC rate exceeding 90%. This includes more than 70 imported precision machines from Switzerland, Germany, the U.S., the U.K., and the Czech Republic, and over 100 precision machines from top domestic manufacturers. Our strong processing and inspection capabilities cover rough, semi-precision, and precision machining for all self-made parts, including machine tool castings, steel parts, copper parts, and sheet metal parts. This fully meets customer needs for personalized customization and special delivery schedules.

原材料控制
Stringent Raw Material Quality Control

我们对原材料进行严格控制，配备德国布鲁克光谱仪、德国蔡司金相显微镜以及拉伸试验机等，对原材料的化学成分、金相组织以及力学性能进行检验，确保采购的铸件、钢材、铜件等质量可靠。

We strictly control raw materials using German Bruker spectrometers, German Zeiss metallographic microscopes, and tensile testing machines. These tools inspect the chemical composition, metallographic structure, and mechanical properties of materials like castings, steel, and copper, ensuring reliable quality.



德国布鲁克光谱仪


德国蔡司金相显微镜

德国WAYGATE超声波检测仪

表面处理工艺
Surface Treatment Technology

铸件、钢件、钣金件表面处理均采用绿色环保处理设备，确保机床制造过程中不对环境产生危害。通过喷砂和喷丸对其进行二次时效，提升零件的机械强度和使用寿命。

We use eco-friendly equipment to treat castings, steel parts, and sheet metal parts, ensuring no environmental harm during machine tool manufacturing. Shot blasting and sand blasting are used for secondary aging, enhancing the mechanical strength and service life of components.


Q1520通过式抛丸机


Q26YCCJ
全自动刮板回收式喷砂房

铸件稳定性工艺
Gasting Stability Technology

机床铸件应力释放程度直接关系到机床的可靠性，关键铸件经一次自然时效、两次热时效以及一次震动时效，使得铸件的铸造应力和加工应力得以充分释放，有效的保障了机床的精度稳定性。

The stress relief of machine tool castings directly affects the reliability of the machine tool. Key castings undergo one natural aging process, two thermal aging processes, and one vibration aging process. This fully releases casting and machining stresses, effectively ensuring the precision stability of our machine tools.

电阻式热处理时效炉

天燃气热处理时效炉

铸件自然时效场

热处理工艺
Heat Treatment Process

热处理作为机床制造的关键工序，我们一直坚持自主可控，拥有爱协林箱式多功能炉、井式气体氮化炉、井式渗碳炉、井式回火炉、高频表面淬火、辉光离子氮化等先进的热处理设备。

Heat treatment, a crucial process in machine tool manufacturing, has always been kept in - house and controllable. We are equipped with advanced heat treatment facilities, including Aichelin multi - function furnace lines, well - type gas nitriding furnaces, well - type carburizing furnaces, well - type tempering furnaces, high - frequency surface quenching, and glow discharge ion nitriding equipment.

井式气体氮化炉

辉光离子氮化炉

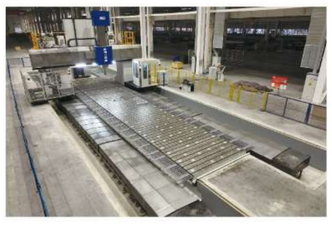
奥地利爱协林多功能热处理炉

多功能热处理炉

导轨加工工艺
Guide Way Machining Process

机床导轨直接决定了机床加工的刚性、进给稳定性和精度保持性，我们的齿轮机床采用淬硬导轨或镶钢导轨。导轨面经龙门铣精密铣削，大平磨半精磨，后经超音频淬火，淬硬层深度达2~3.5mm。淬火后采用进口导轨磨进行磨削，可严格保障导轨、丝母座安装基面满足设计要求，导轨直线度可达0.003/2000mm，有效保障了机床的直线轴精度和寿命。

The machine tool guideway directly determines the rigidity, feed stability, and precision retention of the machine tool. Our gear machine tools feature hardened or steel-guided guideways. The guideway surface undergoes precision milling by a gantry mill, semi-precision grinding by a surface grinder, and then ultra-high-frequency quenching to achieve a hardened layer depth of 2 - 3.5mm. After quenching, precision grinding using imported ultra-precision guideway grinders ensures strict compliance with design requirements for the guideway and nut seat mounting base. The straightness of the guideway can reach 0.003mm/2000mm, effectively ensuring the precision and service life of the machine tool's linear axes.



济南二机XK2750×240
数控定梁龙门移动镗铣床

M7150×30/HZ 卧轴矩台平面磨床

HKHC800CC
超音频数控卧式导轨淬火机床

德国海科特SZ-25-20龙门导轨磨床

德国科宝20FS-26-02导轨磨床

蜗轮副加工工艺
Worm Gear Pair Machining Process

蜗轮副作为齿轮机床最核心的部件，其加工精度和效率直接决定了产品的精度和产能。公司拥有国内外高精度蜗轮母机6台、蜗杆磨床5台、德国滚刀刃磨床和滚刀铲磨床各1台、自制蜗轮副啮合仪5台，蜗轮副精度可达ISO2级。

As the most critical component of gear machines, the precision and efficiency of worm gear pair processing directly determine the accuracy and production capacity of the product. Our company boasts six high-precision worm gear mother machines from home and abroad, five worm grinder machines, one German hob sharpening machine, and one hob profile grinding machine. Additionally, we have developed five proprietary worm gear pair meshing testers, achieving a precision level up to ISO Grade 2. This state-of-the-art equipment ensures superior performance and unparalleled accuracy in our gear machining processes.

俄罗斯Y546蜗轮母机（目前世界最大）

德国利勃海尔L1500滚齿机

英国M3750数控蜗杆磨床

德国UWID萨克滚刀刃磨床

宜昌长机自制
YJ250/500蜗轮副啮合检测仪

刀具主轴工艺
Cutter Spindle Technology

刀具主轴精度直接决定了刀具的安装精度，公司配备了德国霍夫勒磨齿机、克林贝格磨齿机、哈挺超精磨、主轴磨、花键磨等系列高精度设备。

The accuracy of the machine tool spindle directly determines the installation precision of the cutting tool. Our company is equipped with a series of high-precision machines, including German Hofler gear grinders, Klingelnberg gear grinders, Hardinge ultra-precision grinders, spindle grinders, and spline grinders.

德国克林贝格RAPID 1600L数控磨齿机

H309高精度万能外圆磨床

M2110C数控内圆磨床

德国霍夫勒RAPID 650
数控成型磨齿机

美国哈廷J10-U1600
数控内外圆磨床

箱体加工工艺
Housing Processing Technology

产品关键零件刀架体、工作台、铣刀架、驱动箱、立柱等的精度特别重要，公司根据零件加工需求引进了一系列国内外高精度箱体加工设备，包括5台瑞士 DIXI坐标镗、4台美国哈斯加工中心及德国 SCHARMANN 卧式加工中心、法国贝蒂立磨、台湾达佛罗加工中心、亚威龙门加工中心、昆机加工中心等。

The precision of key components such as tool holders, workbenches, milling cutter heads, drive boxes, and columns is particularly crucial. To meet the demands of component processing, we have introduced a series of high-precision box processing machines from both domestic and international sources. Our equipment includes 5 Swiss DIXI coordinate boring machines, 4 American HAAS machining centers, a German SCHARMANN horizontal machining center, a French BETTIS vertical grinder, a Taiwanese Buffalo machining center, an Yawei gantry machining center, and a Kunming machine tool machining center.

瑞士DIXI 5S坐标镗

德国SCHARMANN卧式加工中心

瑞士DIXI 75-ON卧式光学坐标镗

中国台湾曙光DN-1606F数控立卧
双主轴复合磨床

美国HAAS EC630卧式加工中心

中国台湾达佛罗HBM-4T
镗铣加工中心

中国台湾亚威LP4025
数控龙门加工中心

钣金加工工艺

Sheet Metal Processing Technology

产品外观防护凝聚着工艺、品质和创造力，不仅提升产品质量，更塑造产品风格和文化辨识度。随着环保要求的提高，全防护日益成为客户的首选，公司拥有一万平方米的钣金车间，配备了先进的激光切割机、数控折弯机、焊接机器人、喷粉生产线等，实现机床钣金件的制造。

Product appearance protection, the crystallization of technology, quality, and creativity, not only improves product quality but also shapes product style and cultural identity. With the increase of environmental requirements, full protection has become the first choice for customers. Our company has a 10,000 ㎡ sheet metal workshop equipped with advanced machines like laser cutters, CNC press brakes, welding robots, and powder coating lines, enabling the manufacturing of machine tool sheet metal parts.

江苏亚威HPH-3047
数控转塔冲床

日本松下TM1400
焊接机器人

德国TRUMPF-TRULASER 3030
激光切割机

德国TRUMPF-TRUBEND 1225
数控折弯机

JQ1612/6喷粉涂装生产线

刮研工艺

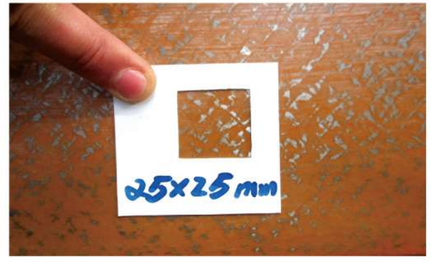
Scraping Technology

刮研可消除机械加工无法处理的轻微偏差，精准实现零件之间结合面的微调，刮研后工件表面组织变得更紧密，配以斜花纹、燕形花纹或鱼鳞花纹，“微米”级的峰谷结构，不仅美观，还能确保润滑油的理想润滑效果，使得机床的精度保持性更高。

多年来公司始终坚持重要结合面采用刮研工艺，拥有一支由十多名高级技师、技师组成的专业团队，实现了高精密机床加工都无法达到的几何精度和尺寸精度。

Scraping eliminates slight deviations that cannot be addressed by mechanical processing, accurately fine-tuning the mating surfaces between components. Post-scraping, the surface structure of the workpiece becomes denser, adorned with herringbone patterns, swallowtail patterns, or fish-scale patterns. This "micron-level" peak and valley structure not only enhances aesthetics but also ensures ideal lubrication effects, significantly improving the precision retention of machine tools.
For many years, our company has consistently applied scraping technology to critical mating surfaces. We boast a professional team comprising over ten senior technicians and skilled craftsmen, achieving geometric and dimensional accuracies that even high-precision machining cannot attain. This dedication to craftsmanship ensures superior quality and performance in all our products.

刮研



刮研检验

LOGO刮研

曲面刮研

精准检测，质量护航

Precision Detection, Quality Assurance

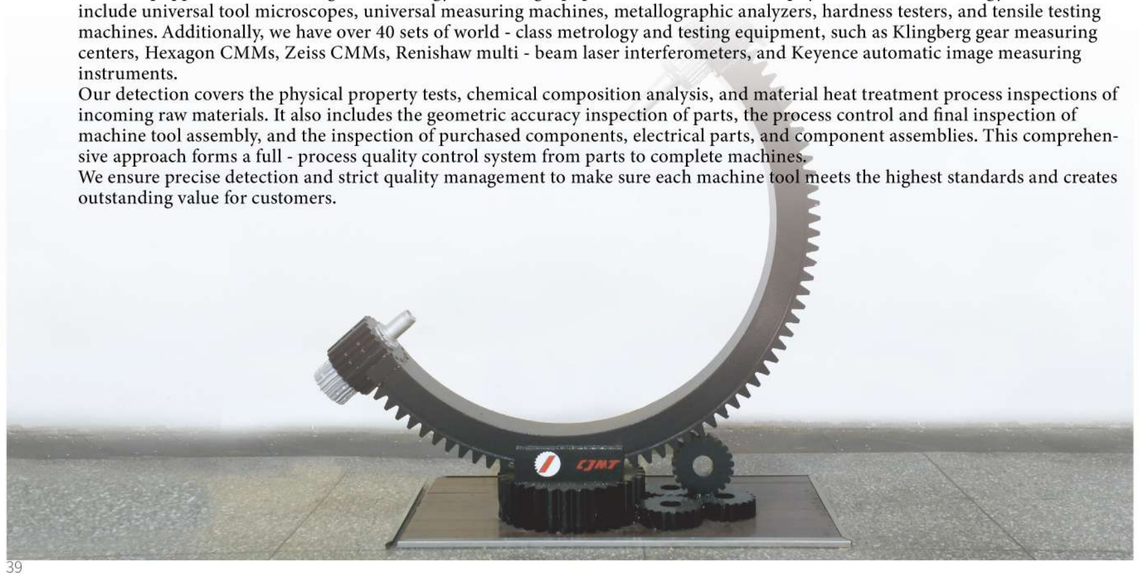
检测中心依据《中华人民共和国计量法》及相关法规，经宜昌市质量技术监督局计量标准考核合格，具备第三方公正地位。专业从事仪器、仪表的计量校准、机械加工零件及齿轮检测、数控机床精度检测以及技术开发、咨询、培训和仪器维修等服务。

中心配备了完善的计量和理化检测设备，包括万能工具显微镜、万能测长仪、金相分析仪、硬度计和拉伸试验机等常规仪器。同时，还拥有克林贝格齿轮测量中心、海克斯康三坐标测量仪、蔡司三坐标测量仪、雷尼绍多光束激光干涉仪和基恩士全自动影像测量仪等国际一流的计量检测设备40多台套。

我们的检测范围涵盖从原材料入厂的物理性能测试、化学成分分析及热处理过程检验，到零件制造的几何精度检测、整机装配的过程控制直至成品出厂检验。此外，对外购件、电器元件及部件总成进行严格检验，形成了一套从零部件到整机的全过程质量控制体系，为生产优质零件和装配高品质机床提供了坚实保障。

通过精准检测和严格的质量管理，确保每一台机床都达到最高标准，为客户创造卓越价值。

Our testing center, authorized by Yichang Quality and Technology Supervision Bureau, operates in accordance with China's Metrology Law. It holds a third - party status and specializes in instrument calibration, mechanical part and gear detection, CNC machine tool accuracy detection, and offers technical services, consulting, training, and instrument repair.
We are equipped with a full range of metrology and testing equipment. Our conventional physicochemical metrology instruments include universal tool microscopes, universal measuring machines, metallographic analyzers, hardness testers, and tensile testing machines. Additionally, we have over 40 sets of world - class metrology and testing equipment, such as Klingberg gear measuring centers, Hexagon CMMs, Zeiss CMMs, Renishaw multi - beam laser interferometers, and Keyence automatic image measuring instruments.
Our detection covers the physical property tests, chemical composition analysis, and material heat treatment process inspections of incoming raw materials. It also includes the geometric accuracy inspection of parts, the process control and final inspection of machine tool assembly, and the inspection of purchased components, electrical parts, and component assemblies. This comprehensive approach forms a full - process quality control system from parts to complete machines.
We ensure precise detection and strict quality management to make sure each machine tool meets the highest standards and creates outstanding value for customers.



德国蔡司三坐标测量仪

瑞典海克斯康GLOBAL 15/24/14
三坐标测量机

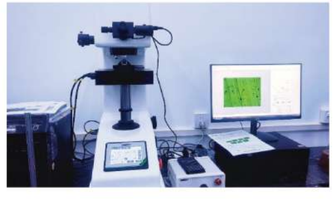
瑞士克林贝格P65齿轮测量中心

英国RENISHAW双频激光干涉仪

英国RENISHAW激光准直仪

日本基恩士全自动影像测量仪

国产齿轮测量中心



英示自动显微维氏硬度计

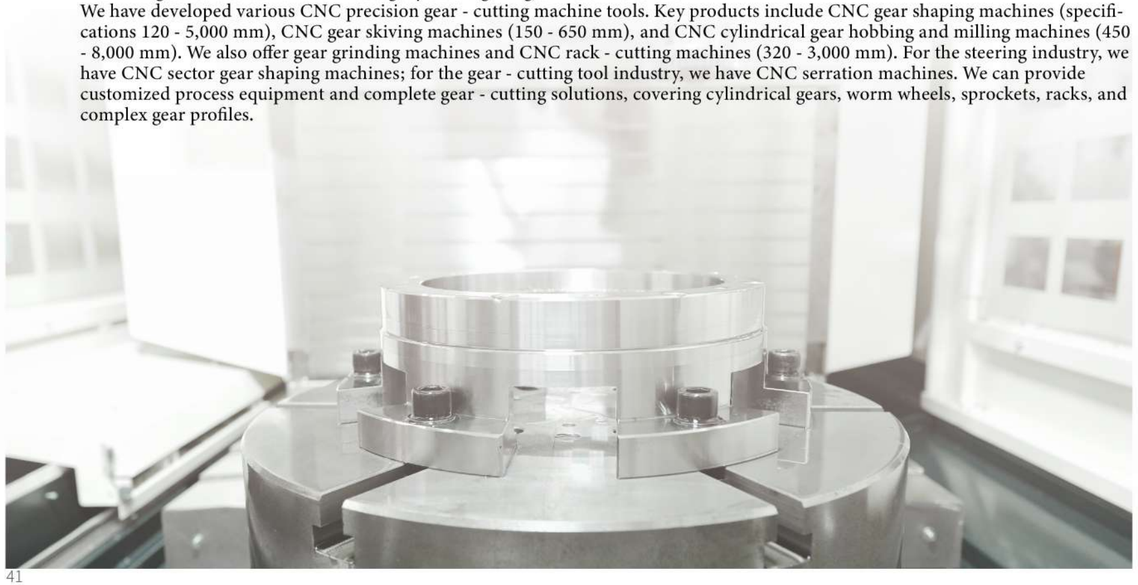
宜昌长机自制静压刀架体
测试平台

产品系列
PRODUCT LINEUP

机床作为工业母机，是装备制造业的基础。打造品牌的终极目标，在于创建并主导一个品类，即成为客户首选、行业专家的“品类王”。公司以重型超大机床、小型超精高效机床、专用机床和机床再制造为特色，强化插齿机、刮齿机、滚齿机、铣齿机、磨齿机产品竞争力；加快研发珩齿机、剃齿机和齿轮加工中心，形成齿轮机床品类全覆盖。

目前已研制出了各型数控精密制齿机床。主导产品为规格120-5000mm的数控插齿机，规格150-650mm的数控刮齿机，规格450-8000mm的数控圆柱齿轮滚齿机、铣齿机，磨齿机以及规格320-3000mm的数控齿条插齿机、数控齿条铣齿机和数控齿条磨齿机。针对转向器行业开发了数控扇形齿轮插齿机，针对制齿刀具行业开发了数控梳槽机等，也可按用户个性化需求提供刀具、夹具、辅具等工艺装备及成套齿轮加工解决方案，满足圆柱齿轮、蜗轮、链轮、齿条及复杂齿形加工的需求。

Machine tools, as industrial mother machines, are the foundation of equipment manufacturing. The ultimate goal of brand building is to create and dominate a product category, becoming the customer's first choice and an industry expert—the "category king." Our company specializes in heavy and large, small and precision-efficient gear machine tools, specialized machine tools, and remanufacturing. We enhance product competitiveness in gear shaping machines, gear skiving machines, gear hobbing machines, gear milling machines, and gear grinding machines, while accelerating the development of honing machines, deburring machines, and gear machining centers to achieve full - category coverage in gear machine tools.
We have developed various CNC precision gear - cutting machine tools. Key products include CNC gear shaping machines (specifications 120 - 5,000 mm), CNC gear skiving machines (150 - 650 mm), and CNC cylindrical gear hobbing and milling machines (450 - 8,000 mm). We also offer gear grinding machines and CNC rack - cutting machines (320 - 3,000 mm). For the steering industry, we have CNC sector gear shaping machines; for the gear - cutting tool industry, we have CNC serration machines. We can provide customized process equipment and complete gear - cutting solutions, covering cylindrical gears, worm wheels, sprockets, racks, and complex gear profiles.



公司机床加工的代表性零件
PART DISPLAY


内齿圈


深孔内斜齿


内齿圈


内齿圈


行星架


斜齿轮


斜齿轴


齿圈


台阶外齿轮

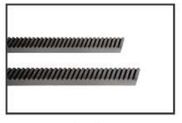

齿圈


齿套座


针齿壳


活塞螺母


齿条


齿条


花键轴


摇臂轴


壳体


人字齿轮


摆动油缸


减速机壳体


减速机壳体


回转支承


风电增速箱内齿圈

1 数控插齿机

CNC GEAR SHAPING MACHINE

效率与品质的代名词

Synonyms for Efficiency and Quality

品类最多，规格最全，提供全系列高效数控插齿机，融合了多年的客户定制化服务经验，公司多个产品被中国机床工具工业协会评为“产品质量十佳”、“自主创新十佳”、“春燕奖”等。数控插齿机被工信部认定为“制造业单项冠军产品”。

With the widest range of categories and the most comprehensive specifications, we offer a full series of highly efficient CNC gear shaping machines. These machines incorporate years of experience in customer-specific design and customization. Several of our products have been recognized by the China Machine Tool & Tool Builders' Association with awards such as "Top Ten Product Quality," "Top Ten Independent Innovation," and the "Spring Swallow Award." Furthermore, our CNC gear shaping machines have been designated as "Manufacturing Single Champion Products" by the Ministry of Industry and Information Technology (MIIT).

高精度小模数数控插齿机
CNC HIGH PRECISION (SMALL MODULE) GEAR SHAPING MACHINE

机床特点
Machine characteristics

1、刀具主轴采用静压支承技术，工作台采用力矩电机直驱，确保刀具与工件高精度联动；
2、床身采用高刚性滚柱直线导轨，光栅尺闭环控制，满足小模数齿轮加工微量进给需求；
3、主运动曲柄机构增加配重装置，减小曲柄机构由质量偏心引起的机床震动，提高机床高速加工的稳定性；
4、针对小模数齿轮插齿加工，配置专用让刀凸轮，机床让刀更平稳；
5、机床刀具冷却管路配置磁性分离精过滤装置，避免冷却液中残留的金属颗粒对工件表面的划伤和刀具的损伤；
6、YGX5112A高精度小模数插齿机执行更严格的装配工艺要求，齿轮加工精度可达到国标5级。

1.Cutter spindle with hydrostatic bearing technology and worktable driven by torque motor direct drive ensure high-precision synchronization between cutter and workpiece.
2.High-rigidity roller linear guides on the machine bed and grating scale closed-loop control meet micro-feed requirements for small-module gear machining.
3.Counterweight device added to the main motion crank mechanism reduces machine vibration caused by mass eccentricity, enhancing stability in high-speed machining.
4.Dedicated tool retraction cam specifically designed for small-module gear shaping ensures smoother tool retraction.
5.Magnetic separation precision filtration device integrated into the tool cooling system prevents residual metal particles in coolant from scratching workpiece surfaces or damaging tools.
6.YGX5112A high-precision small-module gear shaping machine adheres to stricter assembly process standards, achieving gear machining accuracy up to GB/T 10095.1-2008 Class 5.


荣誉证书

宜昌长机科技有限责任公司

你单位参展展品YKG5112小模数高精度数控插齿机 荣获中国数控机床展览会CCMT 2016春燕奖，特颁发荣誉证书。

中国机床工具工业协会
二〇一六年四月


荣誉证书

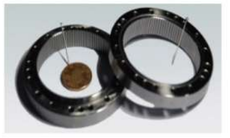
宜昌长机科技有限责任公司：

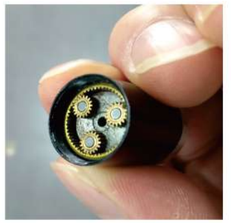
在协会开展的先进会员表彰活动中，你单位“YGX5112高精度小模数数控插齿机”产品被评为2020年度自主创新十佳，特此予以表彰。

中国机床工具工业协会
二〇二一年三月

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type
		YGX5112A
最大加工外齿直径 Max. external gear diameter	mm	120
最大加工内齿直径 Max. internal gear diameter	mm	100+D刀
最大加工模数 Max. Module	mm	2
最大加工齿宽 Max. face width	mm	30
插齿刀冲程长度 Max. stroke length	mm	40
插齿刀冲程速度 Stroke speed	str/min	125~500
插齿刀让刀量 Cutter relieving	mm	≥0.3
插齿刀行程位置调整量 Adjusting amount of stroke position	mm	20
刀轴直径 Spindle diameter	mm	65
工作台直径 Diameter of worktable	mm	240
插齿刀轴心线至工作台轴心线距离 Axis distance spindle /worktable	mm	-50~150
刀轴端面至工作台面距离 Surface distance spindle /worktable	mm	160~220
机床总功率 Total power	kW	约20
机床重量 Total weight	t	约4.5
机床外形尺寸(含附件，长×宽×高) Dimension	m	3.5x3x2.1





注：
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2、公司持续创新机床设计，本手册中各系列产品参数将持续优化。

小型数控插齿机
CNC SMALL GEAR SHAPING MACHINE

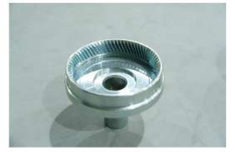
机床特点
Machine characteristics

1、高刚性床身全新设计、加大导轨截面尺寸，铸件结构热变形分析；
2、床身设计大角度，多点排屑，全不锈钢覆盖满足高速干切排屑条件；
3、优化的闭环控制反馈、冷却油制冷系统、严格的过程控制、不锈钢覆盖减少热变形；以及热误差补偿技术保证机床具有高稳定性；
4、集成化设计使机床占地面积小，方便搬运及组线；
5、加工区域全防护，选配油雾分离器使用，可提升过滤吸附效果。

1. The high rigidity bed has been completely redesigned with an increased guide rail cross-sectional area, and casting structure thermal deformation analysis ensures superior rigidity.
2. The bed is designed with a large angle for efficient chip evacuation at multiple points. Full stainless steel coverage meets the requirements for dry cutting chip removal conditions.
3.Optimized closed-loop control feedback, a cooling oil refrigeration system, stringent process control, and stainless steel coverage minimize thermal deformation, ensuring high stability. Closed-loop feedback compensation further enhances performance.
4.Integrated design minimizes the machine tool's footprint, making it easy to transport and integrate into production lines.
5.The machining area is fully enclosed, with an optional oil mist separator that improves filtration and adsorption efficiency.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type		
		YKG5132J	YKS5132H YKD5132H	YKH5132H
最大加工外齿直径 Max. external gear diameter	mm	320	320	320
最大加工内齿直径 Max. internal gear diameter	mm	220+D刀	220+D刀	220+D刀
最大加工模数 Max. module	mm	6	8	8
最大加工齿宽 Max. face width	mm	90	90	90
插齿刀冲程长度 Max. stroke length	mm	100	100	100
插齿刀冲程速度 Stroke speed	str/min	150~1250	125~2000	125~2000
插齿刀让刀量 Cutter relieving	mm	⩾0.3	⩾0.3	⩾0.3
插齿刀行程位置调整量 Adjusting amount of stroke position	mm	30	30	30
插齿刀安装轴颈直径 Diameter of cutter neck	mm	31.743	31.743	31.743
刀轴直径 Spindle diameter	mm	85	85	85
工作台直径 Diameter of worktable	mm	325	420/325	420
工作台孔径 Diameter of worktable bore	mm	100	120/100	120
工作台可倾斜角度 Sloping angle of worktable	°	0	0/±12	0
插齿刀轴心线至工作台轴心线距离 Axis distance spindle /worktable	mm	-110~265	-110~300	-110~250
主轴端面至工作台面距离 Surface distance spindle /worktable	mm	140~270	140~270	140~270
机床总功率 Total power	kW	约25	约28	约30
机床重量 Total weight	t	约5.5	约9	约10
机床外形尺寸(含附件，长×宽×高) Dimension	m	3.058×2×2.6	3.5×3.2×2.9	3×2.51×3



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2、外观防护分半防护、全防护，用户可根据实际需要进行选择；
3、公司持续创新机床设计，本手册中各系列产品参数将持续优化。

中型数控插齿机
CNC MIDDLE GEAR SHAPING MACHINE

机床特点
Machine characteristics

1、通过刀架体静压油膜支撑减小运动发热，提高精度，切削速度可达90m/min，实现高速冲程的要求；
2、轴承/静压工作台：运动阻力小，抗倾覆能力强，旋转精度高，更好地满足高速旋转的要求；
3、刀轴急回功能：缩短了空行程时间，提高了加工效率；(选配)
4、内外齿自动转换：自动化程度高，操作方便，提高换型效率；(选配)
5、传动齿轮箱消隙：减小振动，降低噪音，提高传动精度，增强刚性。

1.Oil film support reduces frictional heat generation and enhances precision. Cutting speed reaches 90m/min, meeting high-speed stroke requirements.
2.Bearing/Hydrostatic Worktable： Low motion resistance, strong anti-tilting capability, and high rotational accuracy, optimally satisfying high-speed rotation demands.
3.Spindle Quick Return Function： Reduces non-cutting idle time and improves machining efficiency. （options）
4.Internal/External Gear Automatic Switching： High automation level with user-friendly operation, significantly enhancing setup change efficiency. （options）
5.Backlash Elimination in Transmission Gearbox： Reduces vibration, lowers noise, improves transmission accuracy, and enhances rigidity.


荣誉证书

宜昌长机科技有限责任公司

在开展先进会员表彰活动中，你单位“YK5180数控插齿机”产品被评为2016年度产品质量十佳，特此予以表彰。

中国机床工具工业协会
二〇一七年四月


荣誉证书

宜昌长机科技有限责任公司

在开展先进会员表彰活动中，你单位“YK5150D数控插齿机”被评为2013年度产品质量十佳，特此予以表彰。

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type			
		YKH5150N	YK5150J	YK5180C	YK5180D
最大加工外齿直径 Max. external gear diameter	mm	600	600	1100	1100
最大加工内齿直径 Max. internal gear diameter	mm	500	500	800	800
最大加工模数 Max. module	mm	10	10	12	12
最大加工齿宽 Max. face width	mm	200	200	250	250
插齿刀冲程长度 Max. stroke length	mm	220	220	270	270
插齿刀冲程速度 Stroke speed	str/min	40~600	40~600	30~400	30~400
插齿刀让刀量 Cutter relieving	mm	⩾0.5	⩾0.5	⩾0.5	⩾0.5
插齿刀行程位置调整量 Adjusting amount of stroke position	mm	50	50	50	50
插齿刀安装轴颈直径 Diameter of cutter neck	mm	44.443	44.443	44.443	44.45
刀轴直径 Spindle diameter	mm	120	120	120	140
工作台直径 Diameter of worktable	mm	700/600	700	900	900
工作台孔径 Diameter of worktable bore	mm	140	140	320	320
工作台可倾斜角度 Sloping angle of worktable	°	0/±10	0	0	0
插齿刀轴心线至工作台轴心线距离 Axis distance spindle /worktable	mm	-40~400	0~400	0~730	0~730
主轴端面至工作台面距离 Surface distance spindle /worktable	mm	255~525	255~525	285~605	285~605
机床总功率 Total power	kW	约35	约35	约35	约42
机床重量 Total weight	t	约12	约9	约16	约16
机床外形尺寸(含附件，长×宽×高) Dimension	m	4.05×3.6×3.25	4×2.4×3.3	4.62×4.21×3.5	4.62×4.21×3.65

注：
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大型数控插齿机
CNC LARGE GEAR SHAPING MACHINE

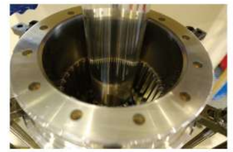
机床特点
Machine characteristics

1、刚性好:机床采用大立柱进给，刚性好；
2、进给平稳:进给导轨副采用卸荷机构，确保进给平稳；
3、操作便捷:行程自动调整，操作方便快捷；
4、承载大:独特的工作台静压卸荷设计，承载大。

1.High Rigidity： The machine adopts a large-column feed structure to ensure high rigidity.
2.Smooth Feed Motion:The feed guideway assembly is equipped with a load-relief mechanism, guaranteeing smooth feed motion.
3.User-Friendly Operation:Features automatic stroke adjustment for convenient and efficient operation.
4.High Load Capacity:Incorporates a unique hydrostatic load-relief design on the worktable, enabling exceptional load-bearing capability.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type			
		YK51125E	YK51160D	YK51250E	YK51350
最大加工外齿直径 Max. external gear diameter	mm	1250	1600	2500	3500
最大加工内齿直径 Max. internal gear diameter	mm	1600	2100	3000	4000
最大加工模数 Max. module	mm	16	16	25	30
最大加工齿宽 Max. face width	mm	300	300	400	500
插齿刀冲程长度 Max. Stroke length	mm	330	330	430	530
插齿刀冲程速度 Stroke speed	str/min	15~150	15~150	15~120	15~120
插齿刀让刀量 Cutter relieving	mm	⩾0.5	⩾0.5	⩾0.5	⩾0.5
插齿刀行程位置调整量 Adjusting amount of stroke position	mm	50	50	60	60
插齿刀安装轴颈直径 Diameter of cutter neck	mm	88.9/101.6	88.9/101.6	88.9/101.6	88.9/101.6
刀轴直径 Spindle diameter	mm	140	140	160	180
工作台直径 Diameter of worktable	mm	1300	1600	2100	3000
工作台孔径 Diameter of worktable bore	mm	300	300	500	600
插齿刀轴心线至工作台轴心线距离 Axis distance spindle /worktable	mm	0~800	0~1000	240~1500	750~2100
刀轴端面至工作台面距离 Surface distance spindle /worktable	mm	250~630	370~750	260~750	460~1050
机床总功率 Total power	kW	约50	约50	约50	约52
机床重量 Total weight	t	约30	约36	约45	约55
主机外形尺寸(含附件，长×宽×高) Dimension	m	6x5.2x4.4	6x5.7x4.6	7x6.6x5	10x6.5x5.1



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提拉式数控插齿机
CNC LIFTING GEAR SHAPING MACHINE

机床特点
Machine characteristics

1、提拉机构驱动机床滑座整体上下移动，行程位置调整方便；
2、针对有相位要求的双联、多联齿加工，可一次装夹完成。

1. The lifting mechanism drives the shaping housing with the spindle to move up and down along with the vertical guides, easy to adjust actual cutting position.
2. For cutting double and multi-connected gears with gear angular position requirements, it can be clamped at one time.


荣誉证书

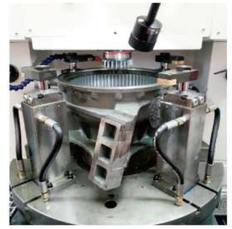
宝鸡长机科技有限责任公司

你单位参展展品YKT5150提拉式数控插齿机荣获中国数控机床展览会CCMT2010春燕奖，特颁发荣誉证书。

中国机床工具工业协会
二〇一〇年四月

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type				
		YKT5132A	YKT5150C	YKT5180C	YKT51125C	YKT51160C
最大加工外齿直径 Max. external gear diameter	mm	320	500	800	1250	1600
最大加工内齿直径 Max. internal gear diameter	mm	220+D刀	600	1100	1600	2100
最大加工模数 Max. module	mm	8	10	12	12	16
最大加工齿宽 Max. face width	mm	90	200	250	250	350
插齿刀冲程长度 Max. Stroke length	mm	100	220	270	270	380
插齿刀冲程速度 Stroke speed	str/min	125~1250	40~400	30~240	30~240	20~150
插齿刀让刀量 Cutter relieving	mm	≥0.3	≥0.5	≥0.5	≥0.5	≥0.5
刀架提拉行程 Axial slide travelof cutter head	mm	300	400	500	500	500
插齿刀安装轴颈直径 Diameter of cutter neck	mm	31.743	31.743	44.443	44.443	88.9
刀轴直径 Spindle diameter	mm	85	100	120	120	140
工作台直径 Diameter of worktable	mm	420	700	900	1300	1600
工作台孔径 Diameter of worktable bore	mm	120	140	320	300	300
插齿刀轴心线至工作台轴心线距离 Axis distance spindle /worktable	mm	-110~265	-40~450	0~640	0~800	0~1000
刀轴端面至工作台面距离 Surface distance spindle /worktable	mm	85~485	150~770	200~970	420~1190	550~1430
机床总功率 Total power	kW	约30	约35	约42	约50	约79
机床重量 Total weight	t	约12	约16	约21	约31	约47
机床外形尺寸(含附件，长×宽×高) Dimension	m	3.85×3.26×2.9	4.32×4.2×3.9	4.52×4.28×4.5	6×5.35×4.52	6.4×6.33×5.52



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万能数控插齿机
CNC HELICAL GUIDE GEAR SHAPING MACHINE

机床特点
Machine characteristics

1、电子螺旋导轨：螺旋角±45度范围内的螺旋齿，输入齿轮相关参数即可加工；
2、机床主运动、刀架旋转运动均采用力矩电机直驱，让刀运动由伺服电机直驱，传动链短，刚性好，精度可靠；
3、安全可靠性高，具有断电回退功能，确保异常情况下刀具不被损坏；
4、曲柄轴具有自动平衡功能，消除运动过程中的偏心力，保障高效加工；
5、自动化程度高，操作方便：七轴四联动，具备大行程自动调整、刀架提拉以及伺服让刀等功能；
6、具备校正螺旋角的功能。fHβ值(螺旋线倾斜偏差)能够在调节插齿机时非常简单地输入和精确校准；
此外还可以设一个fHβ预留补偿值，以补偿随后的热处理变形，校正精度可达微米级别。

1. Electronic helical guide:allows the operator to change the work-piece helix angle(≤ ±45°)by simply entering the lequiled valyes in the dialog program.
2. The spindle motion and the cutter rotating motion are driven directly by torque motor.The cutter relieving movement also driven directly by the servo motor, short transmission chain,good rigidity and reliable precision.
3. High safety and reliability, with power off retracl functior,to ensure that the tool is not damaged under abnormal circumstances.
4. The crank shaft has automatic balance function, which eliminates the eccentric force in the process of movement and ensures efficient machining.
5. High automation, easy for operating, the machine with 7 CNC and have 4 CNC linkage, stroke length automatic adjusting, shaping housing lifting and cutter servo relieving and other functions.
6. Correcting helix angle function. The value fH β (helix tilt deviation) can be easily input and accurately calibrated when adjusting the gear shaping machine. In addition, can be set one fH β reserved compensation value to compensate for the subsequent heat treatment deformation. The correction accuracy can reach the microns class.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type						
		YKW5132	YKW5165A	YKW5180A	YKW51125A	YKW51160	YKCW51160	YKW51250
最大加工外齿径直径 Max. external gear diameter	mm	320	650	800	1250	1600	1600	2500
最大加工内齿径直径 Max. internal gear diameter	mm	220+D刀	800	1100	1600	2100	2100	2500
最大加工模数 Max. module	mm	8	12	12	20	20	20	20
最大加工齿宽 Max. face width	mm	100	200	200	350	350	420	420
插齿刀冲程长度 Max.Stroke length	mm	120	230	230	380	380	450	450
插齿刀冲程速度 Max. stroke speed	str/min	125~1250	40~600	40~600	10~200	10~200	15~150	15~150
插齿刀让刀量 Cutter relieving	mm	⩾0.3	⩾0.5	⩾0.5	⩾0.5	⩾0.5	⩾0.5	⩾0.5
刀架提拉行程 Lifting slide travel of cutter head	mm	300	400	400	500	500	500	500
插齿刀安装轴颈直径 Diameter of cutter neck	mm	31.743	31.743	31.743	88.9	88.9	88.9	88.9
刀轴直径 Spindle diameter	mm	85	100	120	140	140	140	140
工作台直径 Diameter of worktable	mm	420	700	900	1300	1600	1600	2100
工作台孔径 Diameter of worktable bore	mm	120	140	320	300	300	300	500
插齿刀轴心线至工作台轴心线距离 Axis distance spindle /worktable	mm	-110~265	-40~450	-40~650	0~800	0~1000	0~1000	140~1400
刀轴端面至工作台面距离 Surface distance spindle/worktable	mm	115~535	370~1000	300~930	435~1315	370~1250	300~1250	265~1215
机床总功率 Total power	kW	约85	约100	约100	约120	约120	约120	约130
机床重量 Total weight	t	约15	约22	约30	约50	约60	约65	约70
机床外形尺寸(含附件，长×宽×高) Dimension	m	4.4x3.5x3.78	4.65x4.2x4.58	5.3x4.4x5.6	6.86x5.4x5.9	7.3x5.7x5.9	7.3x5.7x6.2	7x6.3x6.2

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液压冲程数控插齿机
CNC HYDRAULIC STROKE GEAR SHAPING MACHINE

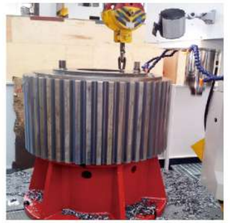
机床特点
Machine characteristics

1、超大齿宽加工，最大加工齿宽达到750mm；
2、主运动伺服液压油缸驱动，带刀具位置自动调整和急回特性；
3、立柱伺服让刀，刚性更好。

1.Large face width processing, with the maximum width of 750mm.
2.The main motion is driven by servo hydraulic cylinder, with automatic cutter position adjustment and quick return features.
3.Column servo tool black-off, with better rigidity.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type	
		YKY51160	YKY51250
最大加工外齿直径 Max. external gear diameter	mm	1600	2300
最大加工内齿直径 Max. internal gear diameter	mm	2100	2500
最大加工模数 Max. module	mm	20	25
最大加工齿宽 Max. face width	mm	750	750
插齿刀冲程长度 Max. Stroke length	mm	800	800
插齿刀最大切削速度 Max. cutting speed of cutter	m/min	25	25
插齿刀最大返回速度 Max. return speed of cutter	m/min	40	40
插齿刀让刀量 Cutter relieving	mm	⩾0.5	⩾0.5
插齿刀安装轴颈直径 Diameter of cutter neck	mm	88.9/101.6	88.9/101.6
刀轴直径 Spindle diameter	mm	180	180
工作台直径 Diameter of worktable	mm	1600	2100
工作台孔径 Diameter of worktable bore	mm	500	500
插齿刀轴心线至工作台轴心线距离 Axis distance spindle /worktable	mm	0~1000	70~1250
刀轴端面至工作台面距离 Surface distance spindle/worktable	mm	350~1150	850~1650
机床总功率 Total power	kW	约80	约80
机床重量 Total weight	t	约36	约43
机床外形尺寸(含附件，长×宽×高) Main Machine Dimension	m	8.3x6.3x6.25	8.3x6.3x6.5



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数控齿扇插齿机
CNC SECTOR GEAR SHAPING MACHINE

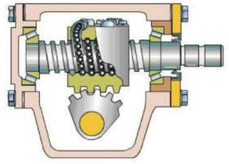
机床特点
Machine characteristics

1、重载直线导轨，保障刀具主轴切削刚性；
2、齿轮箱驱动，输出扭矩大；
3、轴承工作台结构，运动阻力小，旋转精度高，转速快，实现高效加工；
4、定制化软件，可加工定比、变比、偏心结构的摇臂轴；
5、自动化程度高：立柱自动锁紧，工件自动粗精找正；
6、YK5612D：机床X轴和Y轴导轨采用淬火矩形钢轨，具有较强刚性和耐磨性能；
YK5612E：机床X轴采用重载滚柱直线导轨，并配备光栅尺，改善机床微量进给性能，提高加工特殊齿形的精度。

1. Heavy-duty linear guideway to ensure the cutting rigidity.
2. Main movement with big torque by driving gearbox.
3. Machine table with bearing, low motion resistance and high speed and rotation precision, high efficient machining.
4. CNC software for machining rocker shaft of constant ratio, variable ratio, eccentric ratio etc.
5. High automation, and machine column automatic locked and workpiece automatic located.
6. YK5612D： The X-axis and Y-axis guide rails of the machine tool adopt quenched rectangular steel rails, providingstrong rigidity and wear resistance.
YK5612E： The X-axis of this machine tool is equipped with heavy-duty rolling linear guides and a grating scale, enhancing micro-feed performance and improving machining accuracy for special gear profiles.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type
		YK5612E/YK5612D
最大工件直径 Max. workpiece diameter	mm	150
最大加工模数 Max. module	mm	12
最大加工齿宽 Max. face width	mm	80
梳齿刀最大冲程长度 Max. stroke length	mm	90
主运动冲程数 Stroke speed	str/min	60~600
切削角 Cutting angle	°	0~10
刀位调整量 Cutter adjusting	mm	50
圆周进给量 Rotary feeding	mm/str	0~2
梳齿刀让刀量 Cutter relieving	mm	≥0.3
工作台直径 Diameter of worktable	mm	300
工作台孔径 Diameter of worktable bore	mm	70
X轴行程 X-axis travel	mm	125
X轴径向进给速度 Speed of X-axis radial feed	mm/min	0~3000
Y轴行程 Y-axis travel	mm	260
Y轴切向进给速度 Speed of Y-axis tangential feed	mm/min	0~2250
机床总功率 Total power	kW	约30
机床重量 Total weight	t	约9.5
机床外形尺寸(含附件，长×宽×高) Dimension	m	4.1x2.45x3.01



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数控梳槽机
CNC SERRATION MACHINE

机床特点
Machine characteristics

1、刀架整体提拉，加工柔性好；
2、机床刚性好，抗振性强，动态精度高；
3、防护考虑周全，操作维修方便；
4、数字控制稳定可靠，操作方便快捷。

1. Shaping housing lifting with strong maching flexibility.
2. Strong rigidity, good anti-vibration resistance and high precision dynamic.
3. Machine guard & protect safe and easy for operation and maintenance.
4. CNC control steady and reliable, easy to operate.


荣誉证书

宜昌长机科技有限责任公司

在开展先进会员表彰活动中，你单位“ZX300数控梳槽机”产品被评为2017年度自主创新干佳，特此予以表彰。

中国机床工具工业协会
二〇一八年四月

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type
		ZX300B
最大工件外齿直径 Max. gear outer diameter	mm	300
最小工件外齿直径 Min. gear outer diameter	mm	150
工件模数范围 Module range	mm	1~6
最大工件宽度 Max. Width	mm	50
工件螺旋角范围 Helical angle range	°	±35
相邻小槽错位量 Amount of transplacement between adjacent slot	mm	≥0
螺旋线头数 Helix start		≥1
刀架提拉行程 Lift travel of cutter head	mm	150
左右小槽错位量 Amount of transplacement between left and right slot	mm	≥0
相邻螺旋线起点增量 Starting increment of adjacent helix	mm	≥0
冲程速度 Stroke speed	str/mm	100~600
主轴电机功率 Spindle power	kW	11（伺服主轴）
工件主轴分度精度 Spindle indexing accuracy	°	0.01（相对零点）
小槽错位运动轴的重复定位精度 Resetting precision of transplacement moving axis	mm	0.01
机床总功率 Total power	kW	约25.7
机床重量 Total weight	t	约11
机床外形尺寸(含附件，长×宽×高) Dimension	m	4.3x3.8x3.1

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2 数控刮（车）齿机

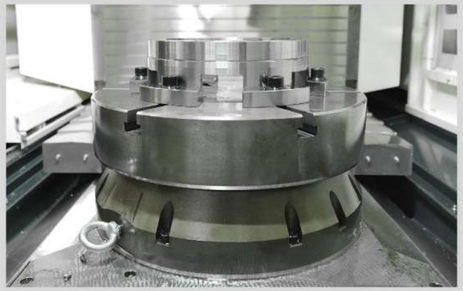
CNC GEAR SKIVING MACHINE

高精高效高柔性的加工优势由我们来呈现

Experience High-Precision, High-Efficiency, and High-Flexibility Machining Advantages with Us

用于直齿、斜齿、鼓形齿、锥度齿、多联齿等加工，可实现齿形齿向修形、无退刀槽加工、圆柱刀具加工、硬齿面加工、自动对齿和对刀、温度补偿等功能，是汽车、减速机、工程机械行业的首选。

Designed for the machining of straight, helical, crown, taper, and multi-link gears, our machines offer functionalities such as tooth profile and tooth direction modification, no-rake slot processing, cylindrical cutter machining, hard gear surface machining, automatic tooth alignment and tool setting, temperature compensation, and more. These features make our machines the best choice for industries including automotive, reducers, and construction machinery.



数控刮（车）齿机
CNC GEAR SKIVING MACHINE

机床特点
Machine characteristics

1、高刚性：径向进给轴采用镶钢导轨和滚动体消隙技术，消除机床加工时的间隙；
2、高可靠性：机床具备刀具自动保护功能，避免刀具意外损坏；
3、模块化程度高：机床结构与滚齿机类似，更换滚齿附件后即可实现高效滚齿加工；
4、YK8150具备自动换刀功能，实现粗、精加工自动转换，降低刀具成本；
5、刀具主轴具备中心孔出水功能，充分润滑刀具，提高刀具寿命；
6、高效率：刮齿加工时刮齿刀沿齿形和齿向两个方向进行高速切削，极大的提高了加工效率，约比插齿快3~5倍，大批量加工更有经济性；
7、高精度：采用双力矩电机直驱，回转精度高，光洁度和周节精度高于插齿；
8、针对批量加工，比拉削更加灵活，精度更高；
9、退刀行程比滚齿小，适用于小空刀的外齿高速加工；
10、工件的表面粗糙度比插齿高。

1.High rigidity: Radial feed shaft adopts steel-inlaid guideway and rolling body clearance technologies to eliminate the clearance in machining.
2.High reliability : Automatic cutter protection function to avoid cutter damage.
3.High modularization: The machine structure is similar with gear hobbing machine, after changing the hobbing accessories, and the machine can realize hobbing with high efficiency.
4.Machine YK8150 with automatic cutters changing function, and also can automatically change between rough and finish machining and reduce the cutter cost.
5.The spindle center hole with water out function, which can fully lubricate the cutter and improve the cutter life.
6.High efficiency, when skiving, the cutter will be in high-speed cutting along with the gear profile & lead, which greatly increasing the machining efficiency, 3 ~5 times faster than shaping, and more economical for the mass machining.
7.High precision: Double torque motors direct driving, high rotation precision, roughness and pitch accuracy higher than shaping.
8.More flexible and higher precision than broaching for batch processing.
9.Small return distance than hobs, and suitable for high speed cutting of external gears with small gap space.
10.The surface roughness quality is better than shaping.


证　书

宜昌长机科技有限责任公司：

你公司设计的产品“YK8150数控刨齿机”荣获第五届“楚天杯”工业设计大赛工业装备类银奖。


荣誉证书

宜昌长机科技有限责任公司：

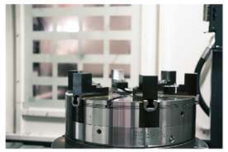
在协会开展的交通会员表彰活动中，你单位“YK8150数控刨齿机”被评为2023年度自主创新十佳，特此予以表彰。

中国机床工具工业协会

二〇二四年四月

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type				
		YK8115	YK8132	YK8132A	YK8150	YK8165
最大加工直径 Max. workpiece diameter	mm	150	320	320	600	650
最大加工模数 Max. module	mm	2	4	4	8	10
刀架主轴端面到工作台面距离 Surface distance spindle/worktable	mm	180~430	50~700	200~550	180~830	200~750
刀柄接口尺寸 Tool taper	mm	HSK-C100	HSK-C100	HSK-C100	HSK-B160	HSK-B160
工作台面直径 Diameter of worktable	mm	220	350	350	600	650
工作台最高转速 Max.speed of the worktable	rpm	3000	1000	2000	1000	500
工作台电机功率 Worktable power	kW	31	41.6	41.6	58	53
主轴最高转速 Max.speed of cutter	rpm	3000	3000	3000	2200	1600
主轴电机功率 Spindle power	kW	29.3	29.3	29.3	58	58
刀架旋转角度 Rotation angle of head	°	±25	±25	±25	±25	±25
X轴最大行程 Max. travel of X-axis	mm	190	350	300	500	500
Y轴最大行程 Max. travel of Y-axis	mm	200	400	300	400	400
Z轴最大行程 Max. travel of Z-axis	mm	250	650	350	650	550
机床总重量 Total weight	t	约8	约16	约12	约16	约16
机床外形尺寸(含附件，长×宽×高) Dimension	m	3.94×3.34×3	5.44×5×3.36	2.94×4.77×3.37	5.54×5.62×3.36	3.61×5.02×3.47


注：
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2、公司持续创新机床设计，本手册中各系列产品参数将持续优化。

3 数控铣齿机

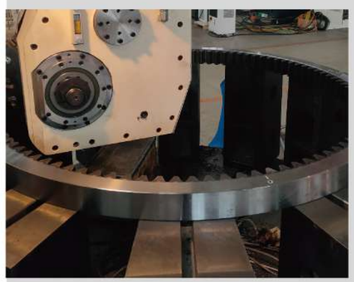
CNC GEAR MILLING MACHINE

探索和发现更多可能性
用匠人精神打造出精湛的高效率机床

Explore and Discover More Possibilities
Crafted with artisanal precision, our high-efficiency machine tools are designed to open up new horizons for gear manufacturing

无论是内齿、外齿，直齿或者斜齿，还是软齿面或者硬齿面齿轮，不管是用于粗加工还是精加工，从450mm到8000mm的铣齿机，我们都能设计、制造和提供。
我们的产品能在很大的范围内满足客户需要，因此深受客户信赖。

Whether you require internal or external gears, straight or helical gears, soft or hard tooth surfaces, for roughing or finishing processes, we design, manufacture, and provide solutions for milling machines ranging from 450mm to 8000mm.
Our CNC milling machines are highly versatile and capable of meeting a wide array of customer needs, making them a trusted choice for many. With our dedication to excellence and precision, customers can be confident in achieving superior results across various applications.



数控铣齿机
CNC GEAR MILLING MACHINE

机床特点
Machine characteristics

1、机床采用优质灰铸铁，筋格布局合理，刚性好、吸振性强；
2、铣头采用柔性全消隙结构，传递大切削功率，降低铣齿切削噪音，提高齿面光洁度，提升刀具寿命；
3、可根据不同行业的特点配置单/双蜗轮高精度高刚性工作台；
4、刀架轴向运动采用国际先进结构，采用直角减速机、失电控制器、电机抱闸多种方式保障安全；
5、中大型机床为淬硬钢导轨与滚动块的结构形式，具有无间隙，高刚性的特点。

1.The main body of the machine tool is made of high-quality gray cast iron, reasonable layout of the bar grid, good rigidity and strong vibration absorption;
2. The milling head features a fully backlash-free flexible structure, transfers large cutting power, reduces cutting noise, improves tooth surface finish, and improves tool life;
3.According to the characteristics of different industries can be equipped with single/double worm gear high-precision and high-rigidity table;
4.The tool holder axial movement adopts international advanced structure, using right-angle reducer, power loss controller, motor lock to ensure safety;
5.The medium and large machine tool is the structure of hardened steel guide rail and rolling block, with no gap, high rigidity.


荣誉证书

宜昌长机科技有限责任公司：

在协会开展的先进会员表彰活动中，你单位“YK83200(A)数控铣齿机”产品被评为2023年度产品质量十佳，特此予以表彰。

中国机床工具工业协会
二〇二三年四月

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type								
		YK83200B	YK83300C	YK83300D	YK83400	YK83400A	YK83500	YK83500A	YK83600	YK83800
最大模数 Max. module	mm	26	26	26	32	32	32	32	32	40
最大内齿内径(直齿) Max. diameter of internal gear	mm	2400	3400	3200	4600	4600	5400	5200	6700	8100
最大外齿外径(直齿) Max. diameter of external gear	mm	2200	3200	3000	4500	4500	5200	5200	6500	8400
最小内齿内径(直齿) Min. diameter of internal gear	mm	800	1100	1100	1450	1400	1900	2100	2400	4200
最小外齿外径(直齿) Max. diameter of external gear	mm	260	950	900	1250	1200	1700	2000	2250	4000
最大螺旋角 Max. helical angle	°	±25	±25	±25	±25	±25	±25	±25	±25	±15
内直齿最大齿宽 Max. face width for intenal gear	mm	600	600	600	600	600	600	600	600	1100
外直齿最大齿宽 Max. face width for extenal gear	mm	1000	1000	1000	1000	1000	1000	1000	1000	1200
内齿工件环形厚度(含工装) Max. a annular thickness of the workpiece for Intenal	mm	370	370	370	370	370	370	370	370	520
内齿刀盘中心悬深 Internal milling housing vertical face with the cutter Center	mm	700	700	700	700	700	700	700	700	1200
刀盘中心距后壁距离 Internal milling housing vertical face with the cutter Center	mm	600	600	600	600	600	600	600	600	795
工作台直径 Worktable diameter	mm	1850	2500	2500	3000	3000	3500	3500	3500	5500
工作台承重 Max. load for the table	t	约20	约40	约20	约20	约50	约50	约30	约120	约150
铣刀中心距工作台面距离 Distance between internal cutter center& table center	mm	400~1550	400~1570	370~1520	590~1750	550~1700	530~1680	550~1650	550~1650	500~2000
内齿铣刀架中心距工作台中心距离 Distance between internal rest & table center	mm	0~1075	330~1540	320~1460	490~2190	470~2190	720~2600	815~2500	980~3220	1550~3950
外齿铣刀架中心距工作台中心距离 Distance between external milling head & table center	mm	270~1355	610~1820	600~1730	770~2470	750~2470	1000~2880	1100~2850	1260~3500	2100~4500
刀盘直径 Milling cutter diameter	mm	420~440	420~440	420~440	440~500	440~500	440~500	440~500	440~500	450~500
刀盘厚度 Milling cutter width	mm	90	90	90	120	120	120	120	120	120
刀盘孔径 Milling cutter arbor diameter	mm	90	90	90	100	100	100	100	100	100
切削速度 Cutting speed	mm/min	0~350	0~350	0~350	0~350	0~350	0~350	0~350	0~350	0~350
快进(退)速度 Fast feeding(back) speed	mm/min	0~1800	0~1800	0~1800	0~1800	0~1800	0~1800	0~1800	0~1800	0~1500
工作台转速 Table speed	rpm	0~2	0~1.25	0~2	0~1.2	0~1.25	0~1.25	0~1	0~1.5	0~1
刀盘转速 Milling cutter speed	rpm	70~140	70~140	70~140	70~140	70~140	70~140	70~140	70~140	70~140
主轴径跳 Spindle runout	mm	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
主电机功率 Spindle power	kW	45	45	45	55	55	55	55	55	65
机床总功率 Total power	kW	约78	约100	约90	约78	约115	约115	约78	约120	约150
机床总重量 Total weight	t	约47	约66	约52	约62	约75	约80	约73	约97	约160
外形尺寸(长×宽×高 不含排屑机) Dimension	m	7.5×5×5	8.5×8×5.5	8.1×7.9×5.5	9×6.8×5	10×6.8×5.5	10×7.5×5.5	10×8×5	12.5×9.5×6	15×12×6.5

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4 数控滚齿机

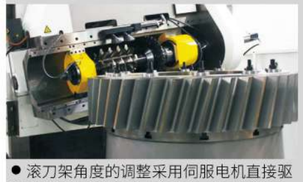
■ CNC GEAR HOBBING MACHINE

我们将重新定义滚齿机
开启高效工艺

We Will Redefine Hobbing Machines, Pioneering Efficient Processes

立式数控滚齿机不仅用于各种直齿、斜齿、锥度齿等齿轮的加工，还可以更换内滚刀架或者内齿铣刀架满足内齿轮的高效加工，增加人字齿附件可以实现人字齿加工。

Our vertical CNC hobbing machines are not only designed for the machining of various types of gears including straight, helical, and taper gears, but they also offer versatility for efficient internal gear machining by allowing the replacement of external hobbing head with internal hobbing or internal milling head. Additionally, the attachment for herringbone gears enables the precise machining of such complex gear forms.



● 滚刀架角度的调整采用伺服电机直接驱动高精度蜗轮蜗杆副来实现，从而保证了角度调整的准确度。
● 滚刀主轴采用大功率交流主轴伺服电机驱动，无级调速，传动过程采用消隙机构，实现高精度、高刚性的主运动传动。

● 工作台采用大规格静压轴承支撑，高精度双蜗轮蜗杆副传动，保证工作台精确的无间隙分度运动。

● 人字齿铣齿附件

数控立式滚齿机
CNC VERTICAL GEAR HOBBING MACHINE

机床特点
Machine characteristics

1、高刚性：机床导轨、滚刀架、工作台等部件用无间隙传动技术，消除了切削过程中振动，保障高效切削；
2、滚铣复合工艺：刀具主轴可以同时安装铣刀和滚刀，铣刀粗加工后通过自动窜刀实现精加工；
3、自动化程度高：机床各轴运动均由伺服电机驱动，操作方便，可实现自动窜刀以及自动扳角度；
4、安全性高：机床具备断电回退功能，在意外情况下可以有效保护刀具；
5、机床的高刚性配以可转位滚刀可以实现干式滚齿，绿色环保；
6、中大型机床为淬硬钢导轨加滚动块的结构形式，具有无间隙、高刚性的特点。

1.High Rigidity: Zero-backlash drive technology applied to machine guideways, hob carriage, and worktable eliminates vibration during cutting, ensuring efficient machining.
2.Hobbing-Milling Compound Process: The tool spindle can simultaneously mount milling cutters and hobs. Rough machining with milling cutters followed by automatic tool shifting achieves precision finishing.
3.High Automation: All axes are driven by servo motors, enabling user-friendly operation with automatic tool shifting and angle adjustment.
4. Enhanced Safety: Power-off retraction function protects tools effectively in emergency situations.
5. Dry Hobbing Capability: Machine rigidity combined with indexable hobs enables environmentally friendly dry gear hobbing.
6. Medium/Large Machine Structure: Hardened steel guideways with rolling blocks provide zero backlash and exceptional rigidity.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type							
		YK3150	YK3180A YK3180B	YK31125A	YK31160A	YK31200A	YK31300	YK31400	YK31600
最大加工工件直径 Max. workpiece diameter	mm	500	800	1250	1600	2000	3000	4000	6000
最大加工模数 Max. module	mm	12	16/20	25	25	25	25	30	30
最大加工齿宽 Max. face width	mm	400	600	800	800	800	800	1600	1600
最大螺旋角 Max. helical angle	°	±45	±45	±45	±45	±45	±45	±45	±35
滚刀转速 Rotation speed of hob	rpm	40~450	40~450 20~150	20~150	20~150	20~150	20~250	10~200	10~200
滚刀最大直径 Max. diameter of hob	mm	270	350	450	450	450	450	450	450
滚刀最大长度 Max. length of hob	mm	300	500	700	700	700	700	700	700
主轴中心至工作台中心距离 Center distance spindle/worktable	mm	50~410	50~600	150~870	150~1050	300~1300	300~1750	400~2300	1200~3500
刀具回转中心至工作台面距离 Distance cutter center/worktable surface	mm	250~800	400~1200	500~1600	500~1600	500~1600	700~1800	900~2700	900~2700
工作台最大承重 Max. load bearing of worktable	kg	500	2000	10000	10000	20000	20000	40000	120000
工作台直径 Diameter of worktable	mm	500	800	1300	1500	1850	1850	2500	3500
工作台孔径 Diameter of worktable bore	mm	140	200	300	300	500	500	600	1000
工作台转速 Worktable rotary speed	rpm	0~20	0~15	0~10	0~10	0~7.5	0~7.5	0~5	0~2
径向进给速度 Radial feed speed	mm/min	0~3000	0~3000	0~3000	0~3000	0~3000	0~3000	0~3000	0~3000
轴向进给速度 Axial feed speed	mm/min	0~1000	0~1000	0~3000	0~3000	0~3000	0~3000	0~3000	0~3000
机床总功率 Total power	kW	约70	约70	约100	约100	约100	约100	约120	约160
机床总重量 Total weight	t	约16	约20	约40	约41	约45	约46	约80	约100
机床外形尺寸(含附件,长×宽×高) Dimension	m	4.5x5.1x3.5	5.4x5.5x4.5	9x7x5.2	9x7x5.2	9.5x7x5.2	10x8x6.5	10x8.5x7.5	12x7.98x6.44

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数控卧式滚齿机
CNC HORIZONTAL GEAR HOBBING MACHINE

机床特点
Machine characteristics

1、高刚性：机床导轨、滚刀架及工作台等关键部件采用无间隙传动技术，有效消除切削过程中振动，从而保障高效切削并延长刀具寿命；

2、自动化程度高：机床各轴运动均由伺服电机驱动，可实现加工过程中的同步自动窜刀以及自动调整角度，尾座夹紧力自动调整；

3、安全性高：机床具备断电回退功能，在意外情况下可以有效保护刀具；

4、绿色环保：可以实现干式滚齿；

5、小型卧式滚齿机床导轨采用滚动直线导轨副，定位精度高；中大型卧式滚齿机床导轨为淬硬钢导轨加滚动块的结构形式，具有无间隙、高刚性的特点。

1.High Rigidity: Key components such as machine tool guides, hob carriers, and worktables utilize zero-backlash transmission technology, effectively eliminating vibrations during the cutting process, thereby ensuring efficient cutting and extending tool life.
2.High Level of Automation: All axes of the machine tool are driven by servo motors, enabling synchronous automatic tool shifting and automatic angle adjustment during the machining process, with automatic adjustment of tailstock clamping force.
3.High Safety: The machine tool is equipped with a power-off retraction function, which can effectively protect the tool in case of unexpected situations.
4.Environmentally Friendly: Capable of dry hobbing.
5.Guide machine tools: Small products mainly use rolling linear guide pairs for high positioning accuracy; medium and large machine tools adopt a structure of hardened steel guides with rolling blocks, featuring zero backlash and high rigidity.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type				
		YK3620	YK3650	YKC3650	YK3680	YK36125
最大工件工件直径 Max. workpiece diameter	mm	200	500	500	800	1250
最大工件长度 Max. workpiece length	mm	1200	3200	15000	4000	5000
最大加工模数 Max. module	mm	6	20	20	25	32
最大工件重量 Max. workpiece weight	kg	300	3000	12000	15000	20000 (带托架)
刀具回转轴线与工件回转线距离 Axis distance between cutter and workpiece	mm	40~180	100~430	100~430	100~650	100~850
径向/轴向进给速度 Radial/Axial feed speed	mm/min	0~5000	0~2000	0~2000	0~3000	0~3000
滚刀转速 Speed of hob	rpm	20~1200	20~250	20~250	20~250	25~250
工件转速 Speed of workpiece	rpm	0.1~200	0.1~20	0.1~20	0.1~20	0.1~20
最大滚刀直径 Max. diameter of hob	mm	140	350	350	450	450
最大滚刀长度 Max.length of hob	mm	200	400	400	400	400
刀架旋转角度 Rotstional angle of cutter head	°	±45	±45~90	±45~90	±45~90	±45~90
尾座套筒最大行程 Max. travel of tailstock sleeve	mm	70	100	100	100	100
机床总功率 Total power	kW	约50	约66	约96	约100	约132
机床总重量 Total weight	t	约12	约35	约95	约68	约88
机床外形尺寸(含附件，长×宽×高) Dimension	m	4.3x2.8x2.8	8.3x6x3.8	20.6x5.1x3.8	10x7x4	10.95x7.8x4.2





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5 数控磨齿机

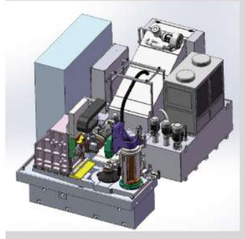
CNC GEAR GRINDING MACHINE

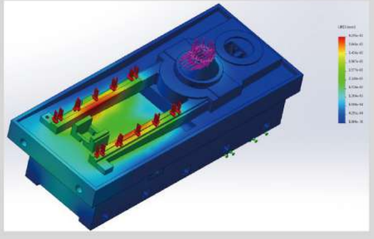
专注于核心技术的开发
打磨出高产出、高效率、高精度的
加工效果

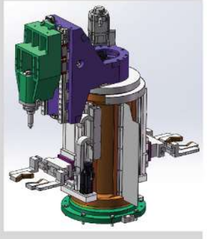
Focus on the Development of Core Technologies, Delivering High-Output, High-Efficiency, and High-Precision Machining Results.

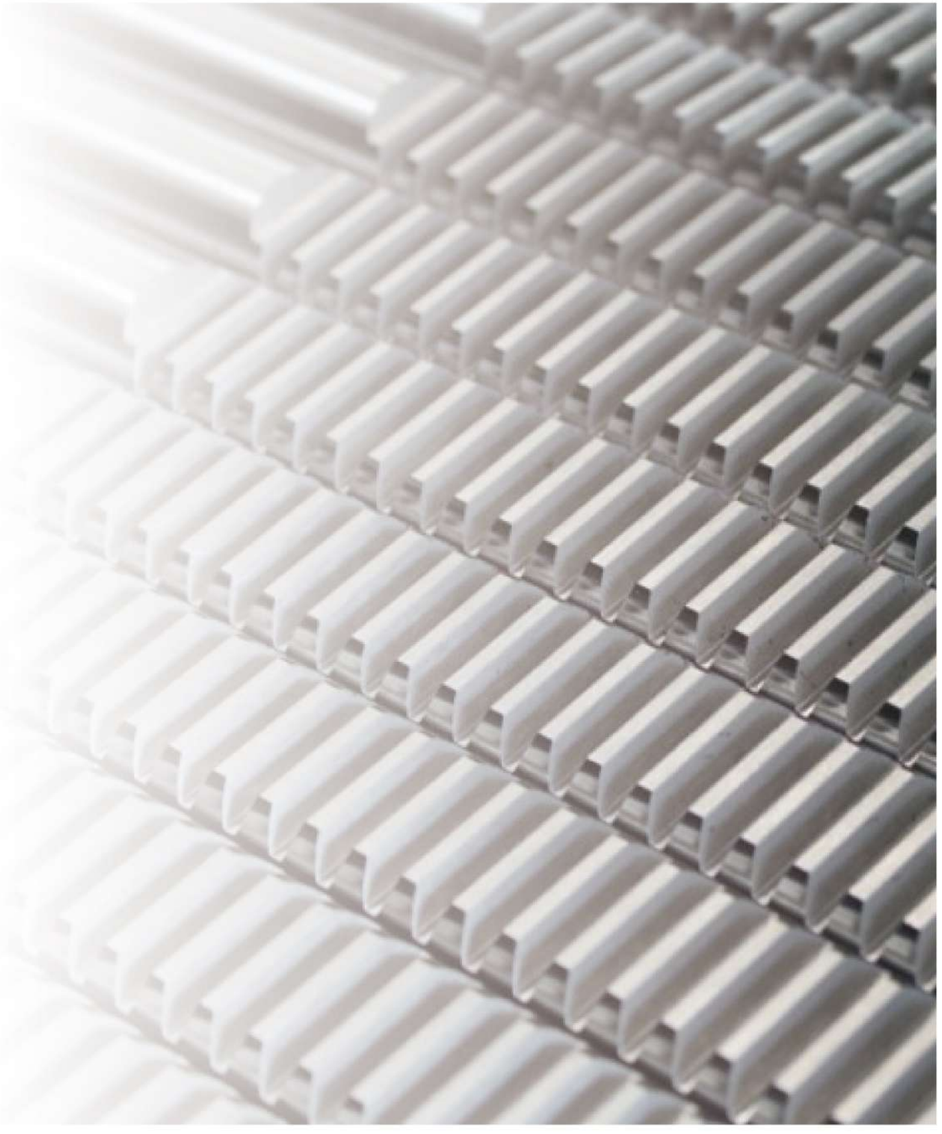
我们采用高刚性、热稳定性、模块化的设计理念。
让机床具有精密、高效、刚性强、稳定可靠、软件功能完善、操作简单等特点，
为客户看到更加优质的效果。

Focus on the development of core technologies, delivering high-output, high-efficiency, and high-precision machining results. We adopt a design philosophy that emphasizes high rigidity, thermal stability, and modularity. This ensures our CNC gear grinding machines are precise, efficient, robust, stable, and reliable, with comprehensive software functionalities and user-friendly operation. By doing so, we enable our customers to achieve superior outcomes.









数控蜗杆砂轮磨齿机
CONTINUOUS GENERATING GEAR GRINDING MACHINE

机床特点
Machine characteristics

1、高刚性：床身、立柱、滑座均采用整体框式对称设计结构，通过有限元分析，具有刚度高、热对称性好及结构稳定性好的特点；

2、高精度磨削主轴:结构稳定可靠,刚性和精度好。同时刀架内置动平衡和声发射系统,动平衡系统实现砂轮在线平衡，减少主轴振动,提高磨削表面质量，声发射系统实现对磨削过程监控,能完成砂轮修整和磨削时自动对刀，同时防止砂轮碰撞；

3、任意齿形齿向修形：齿形修形可根据客户要求定制专用金刚石滚轮，齿向修形可通过数控程序控制工件径向进给和工件轴向进给轴联动，修形加工至客户所需的要求；

4、低噪音移位磨削功能：在磨削过程中通过控制系统多轴联动改变磨削纹路，形成一种齿面微观纹路，从而使齿轮啮合时的噪音显著降低。

1.High rigidity: The bed, column and slide seat all adopt the whole frame symmetrical design structure. Through finite element analysis, it has the characteristics of high rigidity, good thermal symmetry and good structural stability;

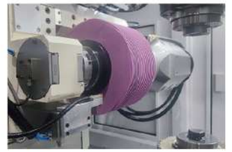
2. High precision grinding spindle : stable and reliable structure, good rigidity and precision. At the same time, the tool holder has built-in dynamic balance and acoustic emission system. The dynamic balance system realizes the online balance of the grinding wheel, reduces the spindle vibration and improves the grinding surface quality. The acoustic emission system realizes the monitoring of the grinding process, which can complete the dressing of the grinding wheel and the automatic tooling during grinding, while preventing the collision of the grinding wheel ;

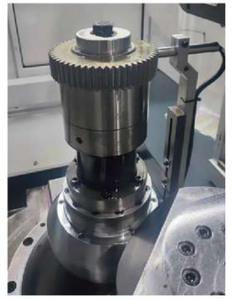
3. Arbitrary tooth profile and axial modification: The tooth profile modification diamond dressing roller can be customized according to customer requirements. The axial modification can be realized by the radial feed of the workpiece and the axial feed axis of the workpiece through the numerical control program, and the modification is processed to the requirements of the customer.

4. Low noise shift function : In the grinding process, the grinding texture is changed by the multi-axis linkage of the control system to form a micro-texture of the tooth surface, so that the noise during gear meshing is significantly reduced.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type
		YK7232
最大直径 Max. workpiece diameter	mm	ϕ320
最大齿宽 Max. face width	mm	250
最大加工模数 Max. module	mm	6
最大工件螺旋角 Max. workpiece helical angle	°	±45
砂轮中心到工作台中心水平距离(X轴) Horizontal center distance grinding wheel /worktable(X-axis)	mm	70~390
立柱进给最大速度(X轴) Max. speed of X-axis	mm/min	10000
砂轮窜刀最大移动量(Y轴) Max. travel of grinding wheel channeling(Y-axis)	mm	250
砂轮中心到工作台台面垂直距离(Z轴) Vertical center distance grinding wheel /worktable (Z-axis)	mm	135~525
滑板最大速度(Z轴) Max. speed of slide(Z-axis)	mm/min	10000
砂轮主轴最高转速(B轴) Max. grinding wheel spindle speed(B-axis)	rpm	7000
工作台最高转速(C轴) Max. rotation speed of worktable(C-axis)	rpm	1500
修整滚轮转速(B3轴) Dressing roller speed(B3-axis)	rpm	3000～6000
砂轮主轴功率(B轴) Spindle power of the grinding wheel(B-axis)	kW	38
砂轮芯轴接口 Grinding wheel core shaft interface		HSK—C80
砂轮规格(外径×内径×长度) Dimension of grinding wheel	mm	ϕ280×ϕ115×160
机床总功率 Total power	kW	约110
机床重量 Total weight	t	约12
机床外形尺寸(含附件，长×宽×高) Dimension	m	6.5x4.4x3.2





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数控成形磨齿机
CNC FORM GRINDING MACHINE

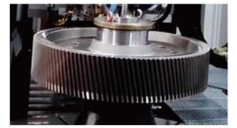
机床特点
Machine characteristics

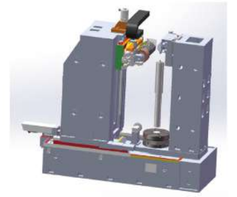
1、机床采用优质灰铸铁，通过有限元分析、优化，采用蜂窝与双壁多孔结合的结构，具有良好的刚度和减振性能；
2、配置高精度并带有预压载荷的瑞士施耐博格滚柱直线导轨，海德汉直线光栅尺闭环控制，直线进给部件运动惯量小，加速度快，特别适用于成型磨削加工；
3、磨削主轴采用德国原装进口电主轴，结构稳定可靠，刚性和精度好。同时刀架内置动平衡和声发射系统，动平衡系统实现砂轮在线平衡，减少主轴振动，提高磨削表面质量；
4、修整轮旋转主轴采用原装进口高速电主轴，采用大尺寸修整滚轮。柔性修整砂轮程序有各种不同的修整参数，可分别适用于粗、精加工，或齿轮的不同表面光洁度要求，保证修整精度。

1. The machine tool adopts high-quality grey cast iron. Through finite element analysis and optimization, it uses a structure combining honeycomb and double - wall multi - hole, ensuring good rigidity and vibration - damping performance.
2. It is equipped with high - precision Swiss Schneeberger roller linear guides with preload. The HEIDENHAIN linear scale closed - loop control ensures small inertial movement of the linear feed components, fast acceleration, and suitability for forming grinding.
3. The grinding spindle uses a German - made electric spindle, offering stable, rigid, and precise performance. The tool holder has built - in dynamic balancing and acoustic emission systems. The dynamic balancing system enables online wheel balancing, reducing spindle vibration and improving surface quality.
4. The dressing wheel spindle uses an imported high - speed electric spindle and a large - size dressing wheel. The flexible dressing program with various parameters meets different roughing, finishing, and surface finish requirements, ensuring dressing accuracy.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type	
		YK7350	YK73300
最大加工齿顶圆直径 Max. workpiece diameter	mm	500	3000
最小加工齿根圆直径 Min. root diameter	mm	0	300(砂轮最大直径时)
最大加工模数 Max. module	mm	10	1~45
最大加工齿深 Max. gear depth	mm	30	100
螺旋角 Helix angle	°	±45	±45
主轴电机最大功率 Spindle power	kW	38	37
砂轮主轴转速 Spindle speed	r/min	3000~4000	3000~4000
最大砂轮宽度 Max. wheel width	mm	160	130
砂轮最大线速度 Max. wheel speed	m/s	50	50
砂轮使用直径 Wheel diameter range	mm	185~300	210~450
主轴砂轮孔安装直径 Spindle hole diameter	mm	127 (5inch)	127 (5inch)
X 轴最大行程 X - axis travel	mm	500	1550
X 轴最大进给速度 Max.X – axis feed	mm/min	3000	6000
Y 轴最大行程 Y - axis travel	mm	250	300
Y 轴最大进给速度 Max.Y - axis feed	mm/min	6000	6000
Z 轴最大行程 Z - axis travel	mm	1100	1500
Z 轴最大进给速度 Max. Z – axis feed	mm/min	6000	6000
修整滚轮最大直径 Dressing wheel diameter	mm	160	120
金钢滚轮安装孔径 Diamond wheel hole diameter	mm	52	35
砂轮中心至工作台面距离 Distance from wheel center to table	mm	600~1700	550~2050
工作台面直径 Table diameter	mm	600	1850
工作台最大承重 Max. load	kg	500	25000
机床重量 Total weight	t	约16	约55
机床外形尺寸(含附件，长×宽×高) Dimension	m	6.35x6.77x4.2	11x8.5x6





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6 数控齿条加工机床

CNC RACK GEAR MACHINE SERIES

插、铣、磨齿条全系列机床
为客户提供齿条加工成套解决方案

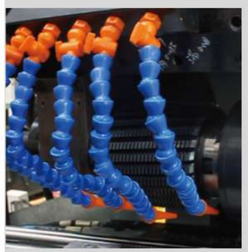
Complete Series of Rack Gear Manufacturing Machines: Shaping, Milling, and Grinding

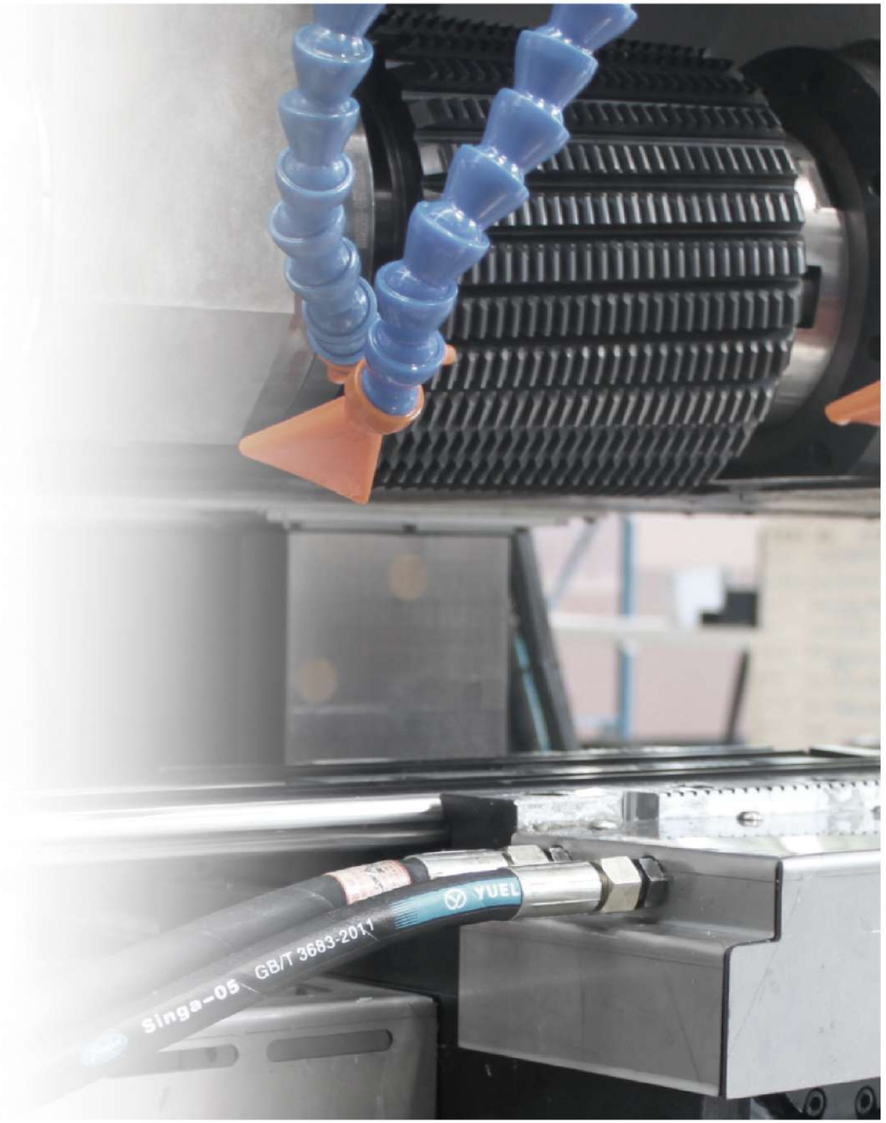
适用于通用传动齿条的批量、小批量或单件加工和精密磨削，以及汽车行业，工程机械行业等特殊齿条的批量，小批量加工和强力磨削。

是我国齿条加工装备行业标准制定者，国内唯一一家同时主持齿条插齿机、齿条铣齿机和齿条磨齿机行业标准制定单位。

We provide full-process rack machining solutions for standard transmission racks and specialized industrial applications. Our systems support precision grinding and tailored processing across high-volume, small-batch, or single-piece production, meeting stringent requirements in automotive and construction machinery sectors. Capabilities extend to high-efficiency power grinding for hardened racks and customized profiles.

As the standard-setting authority in China's rack machining equipment industry, we are the sole domestic manufacturer leading the development of national industry standards for gear rack shaping machines, gear rack milling machines, and gear rack grinding machines.



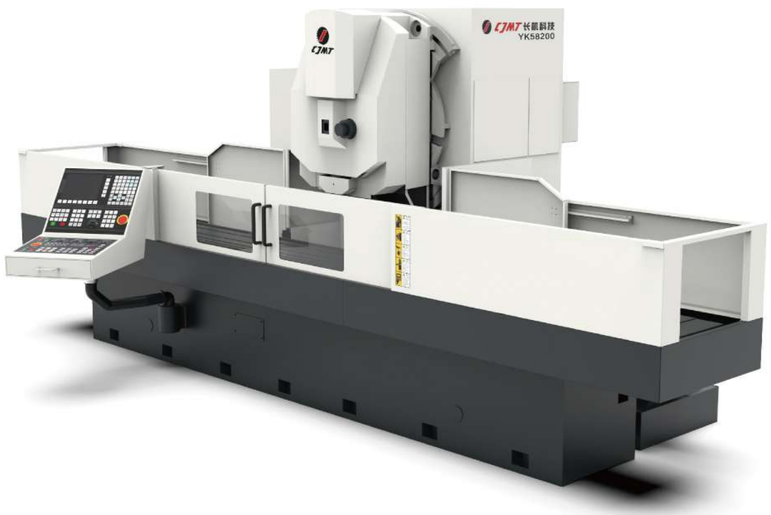


数控齿条插齿机
CNC RACK GEAR SHAPING MACHINE

机床特点
Machine characteristics

YK58系列数控齿条插齿机是自主研发的新型数控齿条专用加工机床，广泛应用于加工各类直、斜齿条，特别适合于工程机械、电梯和机床等制造业的大批量生产使用，也可供机械制造业中单件或小批量的加工。

CNC rack gear shaping machine YK58 series are new type of special developed machines by CJMT. They have been widely used to process all kinds of spur and helical rack gears, and especially suitable for mass produaction of engineering machinery, elevators and machine tool manufacturing, they can also be used for single piece or small batch proceeding in mechanical manufacturing industry.



技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type			
		YKR5832	YK58125	YK58200	YK58300
最大加工直齿长度 Max. length of rack straight	mm	300	1250	2000	3000
最大模数 Max. module	mm	4	12	12	12
加工斜齿螺旋角 Angle of rack	°	±20	±30	±30	±30
插齿刀最大冲程长度 Max. cutter stroke length	mm	100	160	160	160
插齿刀主轴冲程数 Stroke speed	str/min	125~1250	60~300	60~300	60~300
插齿刀行程位置调整量 Adjusting amount of cutter travel	mm	30	50	50	50
工作台切向进给速度(Y轴) Feed speed of worktable	mm/min	0~3000	0~1000	0~1000	0~1000
插齿刀让刀量 Cutter relieving	mm	0.3	⩾0.5	⩾0.5	⩾0.5
插齿刀安装轴颈直径 Diameter of cutter neck	mm	31.743	31.743	31.743	31.743
工作台面尺寸 Worktable dimension	mm	740 x 400	1350 x 490	2150 x 490	3150 x 490
插齿刀安装端面至工作台面距离 Surface distance spindle/worktable	mm	190~320	160~370	160~370	160~370
机床总功率 Total power	kW	约8.5	约30	约30	约30
机床重量 Total weight	t	约6	约11	约13	约15
主机外形尺寸(长×宽×高) Dimension	m	3.5×3.2×2.9	5×3.3×3	6×3.3×3	9×3.3×3

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数控齿条铣齿机
CNC RACK GEAR MILLING MACHINE

机床特点
Machine characteristics

1、机床高刚性结构：高强度铸件与拓扑优化设计，机床导轨为淬硬钢导轨与滚动体结构，以及随动锁紧技术，确保整机高刚性；

2、高精度高刚性主轴：全消隙传动链及双支撑结构，配合伺服主轴电机，实现高回转精度与高效动力输出；

3、高效切削能力：机床主轴电机85%利用率，结合安全保护装置，保障强力切削效率与安全性；

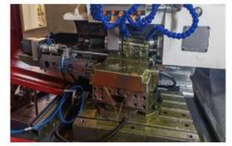
4、强大适配性：SIEMENS 828D数控系统、三级过滤排屑、全/半防护设计及自动化选配功能，满足多样化应用场景需求；

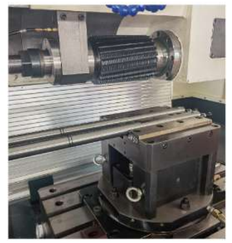
5、全面安全防护：刀具保护与安全保护装置，确保加工过程的安全可靠。

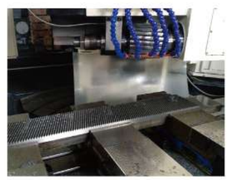
1. High-rigidity machine structure: high-strength castings and topology-optimized design, hardened steel guideways with rolling element structure, and follow-up locking technology ensure overall machine rigidity.
2. High-precision rigid spindle:full backlash elimination transmission chain and double-support structure, combined with servo spindle motor, achieve high rotational accuracy and efficient power output.
3. High-efficiency cutting capability: The spindle motor achieves an 85% utilization rate， integrated with safety protection devices, ensures powerful cutting efficiency and operational safety.
4. Strong adaptability: SIEMENS 828D CNC system, three-stage chip filtration, full/semi enclosure design, and optional automation functions meet diversified application scenarios.
5. Comprehensive safety protection: tool protection and safety devices ensure reliable and secure machining processes.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type	
		YK85125A	YK85200A
最大加工工件长度(直齿) Max. workpiece length(straight rack)	mm	1250	2000
最大加工模数 Max. module	mm	30	30
加工斜齿条角度范围 Max. helical angle	°	±25	±25
最大加工宽度 Max. workpiece width	mm	400	400
工作台最大承重 Max. load for worktable	kg	3000	5000
工作台尺寸 Worktable dimension	mm	600 x 1250	805 x 2900
铣刀最大尺寸 Max. size of milling cutter	mm	Φ320~190+2倍齿深	Φ320~190+2倍齿深
最大装刀宽度 Max. mounting width of milling cutter	mm	300	300
主轴电机功率 Spindle power	kW	37（S1）	37（S1）
主轴转速 Spindle speed	rpm	40~350	40~350
主轴装刀轴直径 Diameter of cutter neck	mm	Φ 60	Φ 60
刀具纵向进给速度 Cutter longitudinal feed speed	mm/min	1200	1200
刀具垂直进给速度 Cutter vertical feed speed	mm/min	1200	1200
工作台横向进给速度 Worktable transverse feed speed	mm/min	2000	2000
机床重量 Total weight	t	约17	约21
机床外形尺寸(含附件，长×宽×高) Dimension	m	3.56x4.7x3.1	7.6x4.6x3.1







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数控强力齿条铣齿机
CNC POWER RACK GEAR MILLING MACHINE

机床特点
Machine characteristics

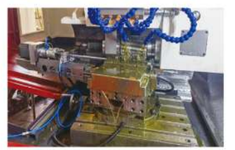
1、机床刚性好：机床结构件采用高强度铸件、拓扑优化设计；镶钢导轨、随动锁紧；刀具主轴驱动采用全消隙传动链，滚动轴承、流体静压轴承双支撑，SIEMENS伺服主轴电机驱动，力矩特性好；
2、机床精度高：主轴驱动轮采用独立支撑，主轴回转精度高；AA级齿条铣刀，切削精度6级；
3、机床切削效率高：机床主轴伺服电机37KW(S1)，利用率可达85%；设计刀具保护和安全保护装置，确保大切深高速加工刀具安全；
4、机床适配性：机床数控系统采用SIEMENS 828D；排屑系统配三级过滤净化、大流量冷却、冲屑；确保机床冲洗、冷却充分；可选配夹具、单机自动上下料等。

1. The machine rigidity is good: machine structure parts using high-strength castings, topology optimization design; Insert steel guide rail, follow-up lock; Tool spindle drive adopts full anti-backlash transmission chain, double support of rolling bearing and hydrostatic bearing, SIEMENS servo spindle motor drive, good torque characteristics;
2. High precision machine tool: spindle drive wheel with independent support, spindle rotation accuracy is high; AA rack milling cutter, cutting accuracy of 6 levels;
3. The machine tool cutting efficiency is high: the machine tool spindle motor 37KW(S1), the utilization rate can reach 85%; Design tool protection and safety protection device to ensure the safety of large deep high-speed machining tools;
4. Machine tool adaptability: machine tool CNC system using SIEMENS 828D; Chip removal system with three-stage filtration purification, large flow cooling, chip flushing; Ensure that machine washing and cooling are sufficient; Optional fixture, single machine automatic loading and unloading, etc.

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type
		YK8532A
最大加工模数 Max. module	mm	12
最大加工工件长度 Max. length	mm	300
加工斜齿条最大角度 Max. helical angle	°	±25（夹具保证）
主轴电机功率 Spindle power	kW	37（S1）
主轴转速 Spindle speed	rpm	40-350
最大装刀宽度 Max. cutter width	mm	300
铣刀外圆直径 Milling cutter diameter	mm	Φ180+2倍刀深~Φ320
主轴装刀杆直径 Milling cutter arbor diameter	mm	Φ60
X轴最大进给速度 Max. feeding speed of X axis	mm/min	1200
X轴最大行程 Max. travel of X axis	mm	500
Z轴最大行程 Max. travel of Z axis	mm	400
Z轴最大进给速度 Max. feeding speed of Z axis	mm/min	500
机床总功率 Total power	kW	约51
机床总重量 Total weight	t	约10
主机外型尺寸（长X宽X高） Dimension	m	5×3.6×2.8

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数控齿条磨齿机
CNC RACK GEAR GRINDING MACHINE

机床特点
Machine characteristics

1、机床砂轮机械主轴由西门子主轴伺服电机驱动，内置动平衡仪，自动监测并实现砂轮的自动平衡，砂轮恒线速度磨削；
2、砂轮配AE自动对刀系统；
3、砂轮修整金刚滚轮采用电主轴直驱，回转精度及可靠性高；
4、配备了高灵敏性、高精度的在位检测系统；
5、机床排屑系统实现了磨削油温度的恒温控制；
6、机床具有断电自动回退功能，确保机床运行的安全。

1. The spindle is driven by Siemens servo motor, built-in dynamic balancing instrument to automatically minitor and ralize the automatic balance of grinding wheel. And keep Constant linear grinding speed.
2. Machine with AE automatic cutter match system.
3. Grinding wheel dressing diamond roller adopts direct drive by motorized spindle with high rotation accuracy and reliability.
4. Equipped with high sensitivity and high precision online measure system.
5. The chip conveyor realizes the constant temperature control for grinding oil.
6. Automatically retract function when power off to ensure the machine safety.


荣誉证书


湖北省
科技成果登记证书
（正本）

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type
		YK78200
最大加工模数 Max. module	mm	18
最大加工工件长度 Max. workpiece length	mm	2000
加工斜齿条最大角度 Max. helical angle	°	±20
主轴电机功率 Spindle power	kW	45
砂轮主轴转速 Grinding wheel spindle speed	rpm	1~4000
最大砂轮宽度 Maximum grinding wheel width	mm	105
砂轮直径 Grinding wheel diameter	mm	Φ220~400
主轴砂轮孔安装直径 Mounting diameter of spindle grinding wheel hole	mm	Φ152.4（6inch）
金刚滚轮直径 Diameter of rolling wheel of golden steel	mm	Φ200
X轴最大行程 Max. travel of X-axis	mm	500
X轴最大进给速度 Max. feed speed of X axis	mm/min	6000
Y轴最大行程 Max. travel of Y-axis	mm	2000
Z轴最大行程 Max. travel of Z-axis	mm	400
Z1轴最大行程 Max. travel of Z1-axis	mm	105
Y1轴最大行程 Max. travel of Y1-axis	mm	125
机床总功率 Total power	kW	约110
机床重量 Total weight	t	约23
主机外形尺寸(长×宽×高) Dimension	m	6.95×6×4

注：
1、重量仅供搬运起重时参考，具体以实物为准；
2、公司持续创新机床设计，本手册中各系列产品参数将持续优化。

数控强力齿条/齿扇磨齿机
CNC POWER RACK/SECTOR GEAR GRINDING MACHINE

机床特点
Machine characteristics

1、高精度砂轮主轴：砂轮机械主轴由西门子主轴伺服电机驱动，内置动平衡仪，自动监测并实现砂轮的自动平衡，支持砂轮恒线速度磨削；
2、自动对刀系统：砂轮配备AE自动对刀系统，确保加工精度和效率；
3、高灵敏检测系统：配备高灵敏性、高精度的在位检测系统，确保加工质量；
4、恒温排屑系统：机床排屑系统实现磨削油温度恒温控制，提升加工稳定性；
5、安全保护功能：机床具有断电自动回退功能，确保运行安全可靠。

1. High-Precision Grinding Wheel Spindle: The grinding wheel spindle is driven by a Siemens servo spindle motor, integrating a built-in dynamic balancer that automatically monitors and balances the grinding wheel, enabling constant peripheral speed grinding.
2. Automatic Tool Setting System: The grinding wheel is equipped with an AE-based automatic tool setting system, ensuring machining accuracy and efficiency.
3. High-Sensitivity Inspection System: A high-sensitivity, high-precision in-process inspection system is integrated to guarantee machining quality.
4. Thermostatic Chip Removal System: The machines coolant circulation system maintains thermostatic temperature control of the grinding oil , enhancing process stability.
5. Safety Protection Function： Features power failure automatic retraction to ensure safe and reliable operation.


荣誉证书

宝鸡长机科技有限责任公司：

你单位参展产品“YK7832 数控强力齿扇齿机”荣获中国数控机床展览会CCMT2024特别奖，特颁发荣誉证书。

中国机床工具工业协会
二〇二四年四月

技术参数 THE MAIN PARAMETERS

名称 Description		型号 Type	
		YK7832	YKA7832
最大加工模数 Max. module	mm	20	12
最大加工齿部长度 Max. gear length	mm	320	
主轴电机功率 Spindle power	kW	110	50
最大砂轮转速 SP1 speed	rpm	1~3000	1~3000
最大金刚滚轮轴转速 SP2 speed	rpm	4500	4500
最大砂轮宽度 Max. grinding wheel width	mm	240	240
最大砂轮直径 Max. grinding wheel diameter	mm	Φ600	Φ500
主轴砂轮孔安装直径 Mounting diameter of spindle grinding wheel hole	mm	Φ203.2（8inch）	Φ203.2（8inch）
X轴最大行程 Max. travel of X-axis	mm	1250	1250
X轴最大进给速度 Max. feeding speed of X-axis	m/min	10	30
Y轴最大行程 Max. travel of Y-axis	mm	480	480
Y轴最大进给速度 Max. feeding speed of Y-axis	m/min	5	5
Z轴最大行程 Max. travel of Z-axis	mm	450	450
Z轴最大进给速度 Max. feeding speed of Z-axis	m/min	10	10
金刚滚轮直径 Emery wheel diameter	mm	160	160
砂轮中心至工作台面距离 Distance grinding wheel worktable	mm	200~680	200~680
工作台面安装尺寸（长度X宽度） Workbench mounting dimension (length X width)	mm	1250X375	1250X375
移动工作台最大承重 Max. load-bearing capacity of workbench	Kg	1500	1500
机床总重量 Total weight	t	约12	约12
主机外型尺寸（长X宽X高） Dimension	m	3.15X3.3X3.24	3.15X3.3X3.24

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机床再制造

REFURBISHMENT

智造新价值，绿色创未来

Smart Value Creation, Green Future Building

机床再制造是通过应用先进技术，局部改变现有设备结构或在原有设备上添加新部件、装置，以提升机床性能、提高生产效率、节约能源和原材料、降低环境污染。旧机床铸件稳定性好、不变形，改造后的机床精度稳定。机床再制造不仅能延长机床使用寿命，提升其技术性能和附加值，还能为机床设计、改造和维修提供信息。

长机科技再制造中心自2004年12月成立以来，肩负延续机床生命、挖掘工业剩余价值的使命。这里汇聚了近100位专业精湛的维修精英，包括经验丰富的钳工、电工及技术专家，他们为每台老旧机床量身定制重生方案。

长机科技专注于齿轮机床全生命周期管理，提供项修、大修、数控化升级改造等全方位再制造服务，及设备整体搬迁外包服务。依托长机科技的技术、装备和工艺资源，我们精准激发旧机床再制造潜能，使其快速焕新，性能指标媲美新机床，为客户带来高性价比的机床设备，助力企业可持续发展，减少环境破坏。

Refurbishment is enhancing machine tool performance, boosting efficiency, saving energy and raw materials, and cutting pollution by technically upgrading the existing equipment structure or adding new components. The used castings of old machine tools are stable and deformation-free, ensuring high precision of the upgraded machine tools. Remanufacturing not only extends the service life and value of machine tools but also offers insights for their design, renovation, and repair, achieving lifecycle extension with minimal costs and resources.

Since its inception in December 2004, the CJMT's Refurbishment Center has been committed to prolonging the life of machine tools and unlocking industrial residual value. It houses nearly 100 skilled repair professionals, including experienced fitters, electricians, and technical experts, who craft customized rebirth solutions for each old machine tool.

CJMT specializes in the full - lifecycle management of gear machine tools, offering comprehensive remanufacturing services ranging from item repair, major overhaul, and numerical control upgrade to equipment relocation outsourcing. Backed by CJMT's robust technical, equipment, and process resources, we precisely unlock the remanufacturing potential of old machine tools, enabling them to be swiftly rejuvenated with performance indicators comparable to new ones . This delivers high - cost - effective machine tools to customers, supporting sustainable enterprise development, and reducing environmental damage.


改造前

改造前

改造前


改造后

改造后

改造后

专业的精度修复

设备安装

大型机床的安装和调试

德国海科特导轨磨升级改造

法国贝蒂立磨升级改造

数控化升级

战略合作伙伴
STRATEGIC PARTNERSHIPS

长机科技以长期利益为指向，精心选择合作伙伴，并通过供应商管理和客户关系管理，发展一批战略供应商和战略客户。（排名不分先后）

CJMT focuses on long-term interests and carefully selects partners. By implementing effective supplier management and customer relationship management, we aim to build strategic supplier and customer relationships, fostering mutually beneficial growth and sustainable development.（without ranking preference）

战略客户
strategic customers

战略供应商
strategic suppliers