AFMING 埃弗米
Accuracy From Milling Head 精准始于铣头

埃弗米产品综合目录

A comprehensive catalogue of AFMING products

东莞市埃弗米数控设备科技有限公司

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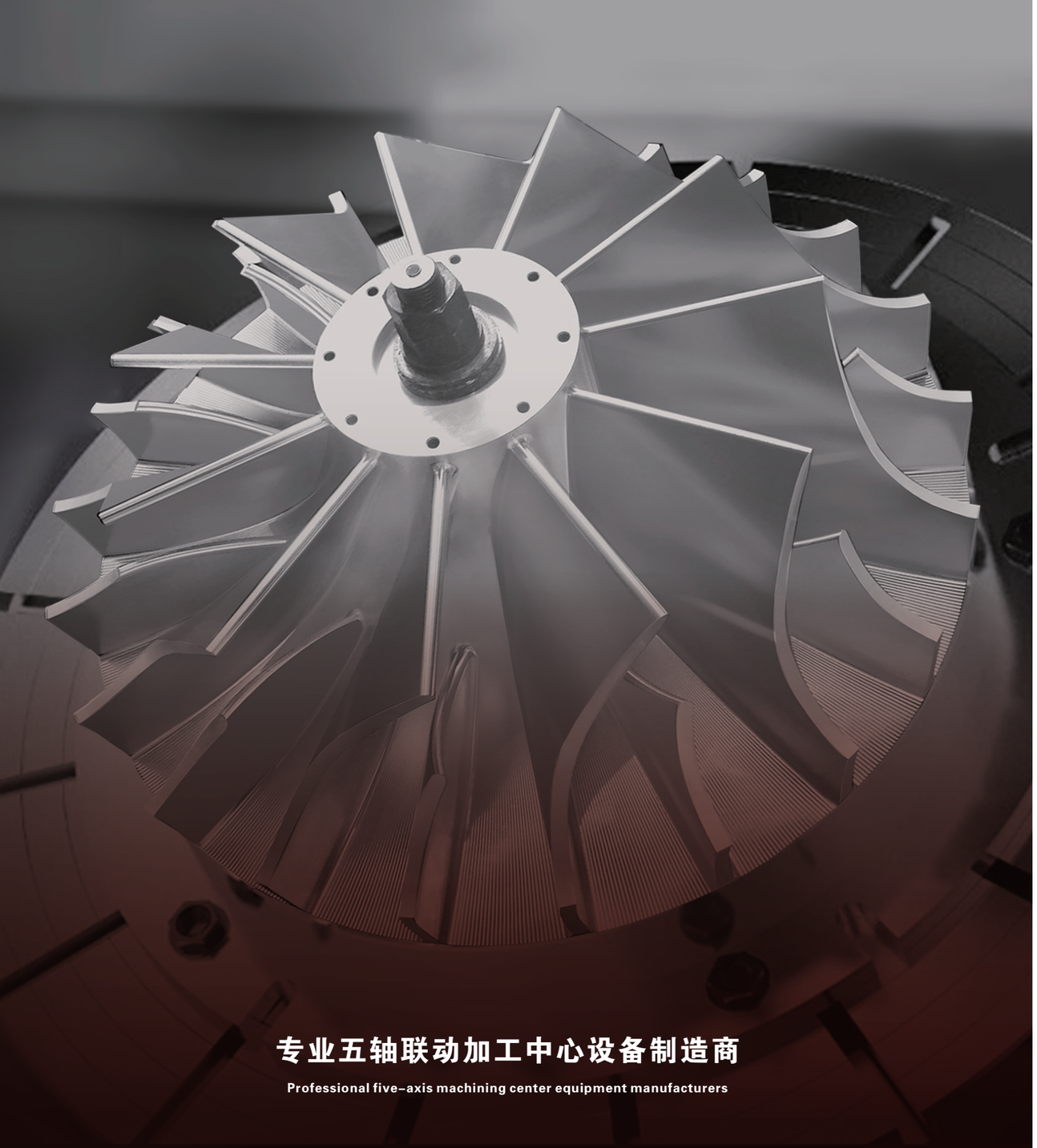
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让高端五轴实现普及化
Making premium 5-axis accessible

5-AXIS GTRT
搭载齿轮驱动转台技术



专业五轴联动加工中心设备制造商

Professional five-axis machining center equipment manufacturers

5-AXIS GTRT
搭载齿轮驱动转台技术

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目前公司拥有380多名涵盖研发、生产、销售等领域的专业人才，并与国内多家院校建立起产学研用合作平台，为公司未来发展奠定了技术基础和人才基础。

目前公司生产的主要产品包括：五轴联动数控机床、高速加工中心、高精度滑块磨床、高速石墨加工中心以及核心零部件等公司产品畅销国内外。

We currently have over 380 professional empoyees, specializing in R&D, production, and sales. We have also established industry-university-research-application collaboration platforms with multiple domestic universities and institutes, laying a solid technological and talent foundation for the company's future growth.

Our core product portfolio includes: five-axis simultaneous machining center, high-speed machining centers, high-precision slideway grinding machines, high-speed graphite machining centers, and key components. Our products are well received and distributed both domestically and internationally.

关于埃弗米

About AFMING

东莞市埃弗米数控设备科技有限公司是广东省机器人骨干上市企业广东拓斯达科技股份有限公司（股票代码300607）的控股子公司，成立于2015年，是一家集研发、生产、销售、服务于一体的高端数控机床为主营业务的高新技术企业，公司坚持以“让高端五轴实现普及化”为企业使命，以“全心全意为客户服务”为企业价值观，致力于专注五轴联动加工中心为核心的产品开发及应用技术研究，实现高端五轴设备进口替代，为国内航空航天、汽车、医疗、模具、精密零件加工等领域提供基于五轴联动数控机床的高效加工整体解决方案。

Dongguan Afming Numerical Control Equipment Technology Co., Ltd. is a holding subsidiary of Guangdong Topstar Technology Co.,Ltd. (stock code: 300607), a backbone listed robot company in Guangdong Province. Founded in 2015, it is a high-tech enterprise specializing in high-end CNC machine tools that integrates research and development, production, sales, and service. The company adheres to the mission of "Promote the popularization of high-end five axis technology" and the corporate value of "whole heartedly serving customers". Committed to product development and application technology research centered on five axis simultaneous CNC machining centers. We aim to achieve import substitution of high-end five axis equipment and provide efficient machining solutions based on five axis simultaneous CNC machining centers for domesticaerospace, automotive, medical, mold, precision parts processing and other fields.



产品总览

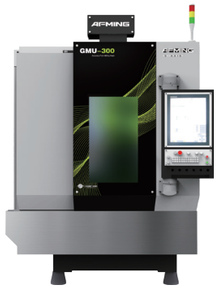
Product Overview

埃弗米深耕机床行业多年，技术积淀深厚，具备主轴、转台、摆角铣头等核心零部件的自主设计及制造能力，整机设计及装配技术水平居于国内前列，致力于为各类复杂零件加工及模具、汽车、航空航天等行业提供高效、高精度、稳定的整体解决方案。

- 石墨加工中心认定为“2018年东莞市首台套目录”
- GMU800被认定为“2021年东莞市首台套目录”
- 2022年获得东莞市“工程技术研究中心”称号
- 2022年获得广东省“创新型中小企业”称号
- 2023年获得广东省“专精特新中小企业”称号
- 2025年获得广东省“精密五轴及以上高端数控装备工程技术研究中心”称号

AFMING is a leader in advanced machine tool technology, with deep expertise in the independent design and manufacture of critical components like spindles, rotary tables, and swivel milling heads. This core competency, combined with top-tier holistic design and assembly capabilities, ensures we provide high-precision, stable, and efficient integrated solutions for complex machining challenges in the mold, automotive, and aerospace sectors.

The graphite processing center has been recognized as the first set of catalog in Dongguan City in 2018.
GMU800 has been recognized as the first set of catalog in Dongguan City in 2021.
It was awarded the title of "Engineering Research Center"by Dong guan City in 2022.
Received the title of "Innovative Small and Medium sized Enterprise" in Guangdong Province in 2022.
Received the title of "Specialized, Refined, Unique and New" Small and Medium sized Enterprise in Guangdong Province in 2023
Achieved the "Guangdong Provincial Engineering Technology Research Center for Precision Five-axis and Above High-end CNC Equipment" in 2025.



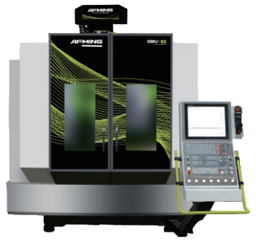
GMU–300



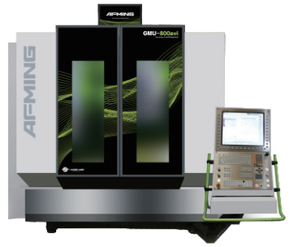
GMU–400E



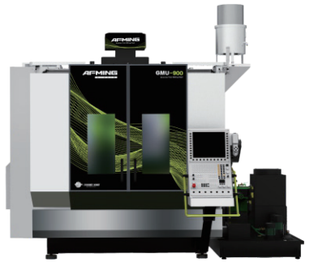
GMU–500



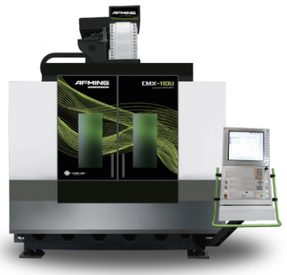
GMU–65



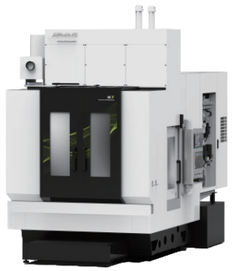
GMU–800avi



GMU–900



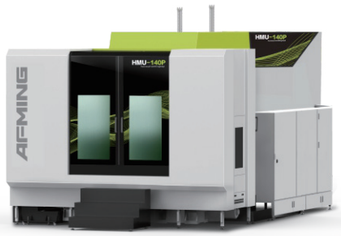
CMX–110U



K7



GMU–2518



HMU–140P



HMU–140U



HMU–1500

摆角铣头、GTRT齿轮驱动转台、主轴

Swing angel milling head technology、GTRT gear driven rotary table 、Spindle

埃弗米五轴联动机床基于全程自主研发，实现了主机结构、转台、摆头等关键核心部件的自主设计与制造。

AFMING five-axis machining centers are built on full-process independent R&D, with in-house design and manufacturing of all core components including the machine structure, rotary tables, and swivel heads.

摆角铣头均为高刚性齿轮消隙传动，回转支承为YRT组合滚子轴承，机械传动具有高传动刚度和阻尼性能是航空钛合金和高温合金等难切削材料加工的最佳选择，回转轴均标配高精度海德汉圆光栅。

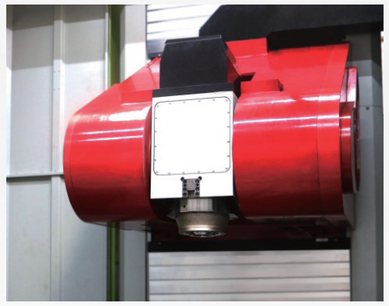
The swing angle milling heads are all driven by high rigidity gear backlash reduction, and the rotary bearings are YRT combined roller bearings. The mechanical transmission has high transmission stiffness and damping performance. It is the best choice for processing difficult to cut materials such as aviation titanium alloys and high-temperature alloys. The rotary shafts are equipped with high-precision Heidenhain rotary encoder as standard.



HMU-140P转台采用机械传动GTRT技术，较常规转台驱动实现更强大的扭矩输出更高的刚性、稳定性及更加出色的回转精度。

The HMU -140 P turntable adopts mechanical transmission GTRT technology to achieve stronger torque output, higher rigid stability and better rotary accuracy than the conventional turntable drive.

工作台尺寸 Size of worktable	Φ1400mm
A轴摆幅 A-axis swing	+60至-100
B轴旋转 B axis rotation	∞
承重能力 Bearing capacity	3000kg



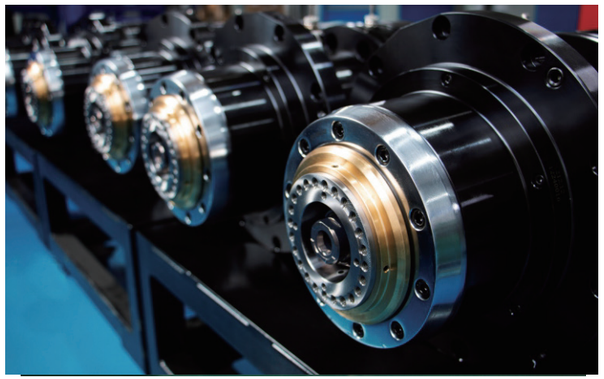
摇篮转台采用机械传动GTRT技术，较常规转台驱动实现更强大的扭矩输出，更高的刚性、稳定性以及更加出色的回转精度；转台A轴及C轴均采用斜齿齿轮驱动，拥有多段消隙专利技术。

The cradle turntable adopts mechanical transmission GTRT technology to achieve more powerful torque output, higher rigidity, stability and better rotating accuracy than the conventional turntable drive. Turntable A-axis and C-axis are driven by helical gears, with multi-stage backlash reduction patented technology.



埃弗米主轴采用轴心冷却和环向喷射技术，有效控制轴心热伸长，转速达到20000rpm，冷机到热机0.015mm，暖机后长时间工作轴心稳定在0.001mm；进一步稳定主轴切换不同工况后的温度场，提高刀尖稳定性，加工零件可获得高精度和高表面质量，快速解决用户主轴维护问题，降低用户使用成本。

AFM spindle adopts axis cooling and circumferential spraying technology to effectively control the thermal elongation of the axis. The speed reaches 20000rpm, and the transition from cooling to heating is 0.015mm. The axis of the heater remains stable at 0.001mm after long-term operation. Further stabilize the temperature field of the spindle after switching to different working conditions, and improve the stability of the tool tip. Processing parts can achieve high precision and high surface quality. Quickly solve user spindle maintenance issues and reduce user usage costs by maximizing speed limits.



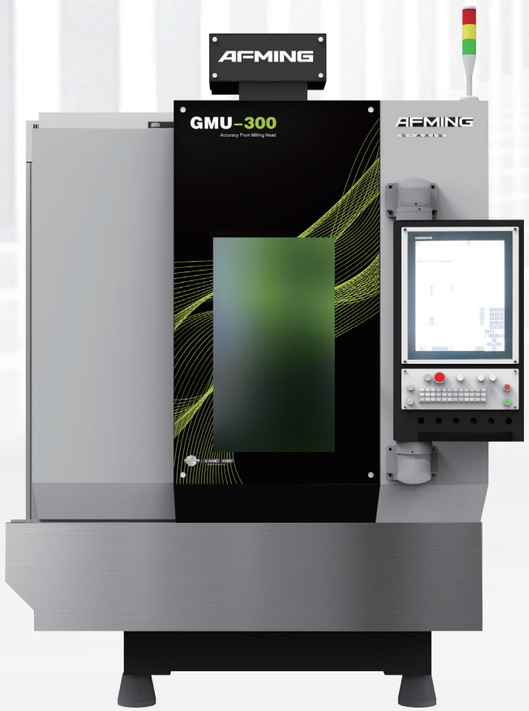


GMU-300
天车式结构加工中心

Gantry structure machining center

GMU-300五轴联动加工中心采用天车龙门对称式结构设计，经FEA动力学优化技术，搭配高性能电主轴及DD直驱传动，实现整机刚度、阻尼与质量的最佳匹配，X/Y/Z轴行程350/770/350mm，A/C轴旋转±120°/360°，设备主轴转速20000rpm，配合32T换刀系统，换刀时间5s，可精准响应模具加工对高表面光洁度与复杂轮廓的动态核心需求。

The GMU-300 five-axis machining center adopts a symmetrical gantry-type structure design, and through FEA dynamic technology, it is matched with high-performance electric spindles and DD direct drive transmission, to achieve the best matching of the overall stiffness, damping and quality, with X//Z axis travel of 350/780/350mm, A/C axis rotation of ±120°/360°, the spindle speed of the equipment is 24000rpm, and the tool change system of 32T is matched, the tool change time is 5S，which can meet the core needs of high surface finish, complex contour and high response dynamic for mold processing.





工件：叶轮
材料：铝
Workpiece: impeller
Material: aluminum



工件：人体骨架
材料：钛
Workpiece: human skeleton
Material: Titanium



工件：浆叶
材料：铝
Workpiece: Paddle
Material: aluminum



工件：转向节
材料：铝合金
Workpiece: aluminum
Material: Aluminum alloy

GMU-300亮点

GMU-300 highlights

- 采用天车龙门对称式结构设计，一体式底座，大跨距导轨后置结构，优化受力分布，大幅度降低振动干扰有效提升机床运行稳定性及加工精度。
- 机床占地面积仅3150x1900x2750mm，可直接装入标准货柜运输，显著节省厂房空间，尤其适合中小型车间的布局与使用需求。
- A/C轴为DD马达驱动，刹车扭矩1200N.m。

- The design adopts the symmetrical structure of the sky crane gantry, a one-piece base, a large span guide rail post structure, optimizes the distribution, and greatly reduces the vibration interference, effectively improving the stability and machining accuracy of the machine tool.
- The machine occupies an area of only 3150x1900x2750mm, which can be directly loaded into standard container for transportation, significantly saving factory space and is particularly suitable for the layout and use requirements of small and medium-sized workshops.
- Three-axis travel breaks through spatial restrictionssuitable for complex structure workpieces such as medium-sized molds and automotive parts processing
- A axis is driven by high-precision gear, static torque 1200N.m.

名称 Name		单位 Unit	GMU-300
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	350/770/350 (Y轴行程含换刀行程)
	A/C轴行程 A/C axis travel	deg	±120/360 (∞)
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	48/48/48
	最大切削进给率 Maximum cutting feed rate	m/min	20
	A/C轴快进速度 A/C axis fast feed rate	rpm	80/150
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	24000/HSK-A50
	功率 Power(S6-40%)	kW	18
	扭矩 Torque(S6-40%)	N.m	14.9
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.005/0.005/0.008
	A/C轴 A/C axis	ARCSEC	8/8
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.003/0.003/0.003
	A/C轴 A/C axis	ARCSEC	4/4
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	32T
	换刀时间（刀–刀） Tool change time (tool–tool)	sec	7
	刀具最大长度 Max. tool length	mm	250
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ75/Φ125
	刀具最大重量 Max. tool weight	kg	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	100-450
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	Φ260/100
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	3150x2250
	机床总高 Height	mm	2750
	机床净重 Net Weight	kg	7500
	电力需求 Power requirement	kVA	58

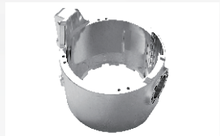
GMU-400E
定梁龙门结构加工中心

Fixed gantry structure machining center

GMU-400E采用定梁式高刚性龙门框架，P级精度高刚性35mm滚柱导轨，通过搭配高性能电主轴及双齿轮消隙传动的高刚性AC摇篮转台，结合丝杆中空冷却技术，可满足加工材料的通用性，对模具、精密零件、汽车配件行业的高效、高精度加工需求提供信心保证。

The GMU-400E adopts a fixed-beam high-rigidity gantry frame and 35mm roller guides with P-class precision and high rigidity. Equipped with a high-performance electric spindle and a high-rigidity AC cradle rotary table with double-gear backlash elimination drive, and combined with the hollow screw cooling technology, it enables universal compatibility with various processing materials, and provides a reliable assurance for the high-efficiency and high-precision processing requirements of the mold, precision component and auto parts industries.





工件：右腿髋转舵外骨架
材料：铝合金
Workpiece: Right leg hip rudder external frame
Material: Aluminium alloy



工件：半月板
材料：高分子聚乙烯
Workpiece:Meniscus
Material:High molecular weight polyethylene



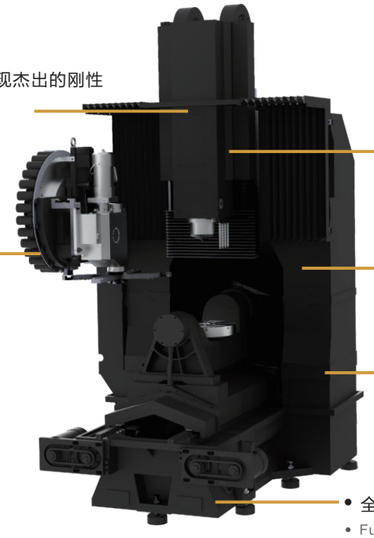
工件：心脏泵叶轮
材料：PEEK
Workpiece: Heart pump impeller
Material: PEEK



工件：髓腔挫
材料：不锈钢
Workpiece: Medullary cavity bruise
Material: Stainless steel

GMU-400E亮点

GMU-400E highlights



- 采用高刚性的定梁龙门结构，实现杰出的刚性热对称、稳定性及高效抑振性。
- Adopt high-rigidity fixed beam gantry structure to achieve excellent rigidity, thermal symmetry, stability and efficient vibration suppression.
- 标配40t圆盘式刀库，刀对刀换刀时间2.5s，刀长300mm，刀具最大重量8kg 可选配30t刀具数量。
- Standard 40t disc-type tool magazine, tool to toolTool change time 2.5s, tool length 300mm,Maximum tool weight 8kg Optional 30t toolNumber of tools.
- Z轴进行动力学与动态优化，极大提供机床的刚性以及零件加工动态性。
- Dynamic and dynamic optimization of the Z-axis greatly provides the machine tool with rigidity and the dynamic performance of part machining.
- 热对称平衡：温度梯度≤2℃/m热变形保持精度≤0.005mm。
- Thermal symmetry equilibrium: temperature gradient ≤ 2℃/m thermal deformation retentionAccuracy ≤ 0.005 mm
- 超大立柱底座面积，可实现机床刚性、稳定性更强。
- Extra large column base area, can achieve stronger machine tool rigidity, stability.
- 全包覆箱型结构铸件，多点支撑设计，增强刚性。
- Full-coverage box-shaped structure casting, multi-point support design, enhanced rigidity.

名称 Name		单位 Unit	GMU-400E
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	550/600/400
	A/C轴行程 A/C axis travel	deg	±120/360
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	30/30/30
	最大切削进给率 Maximum cutting feed rate	m/min	10
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/30
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	15000HSK-A63
	功率 Power(S6-40%)	kW	22.5
	扭矩 Torque(S6-40%)	N.m	107.5
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.005/0.005/0.005
	A/C轴 A/C axis	ARCSEC	6/6
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.003/0.003/0.003
	A/C轴 A/C axis	ARCSEC	4/4
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	40T
	换刀时间（刀-刀） Tool change time (tool-tool)	sec	2.5
	刀具最大长度 Max. tool length	mm	300
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ65/Φ130
	刀具最大重量 Max. tool weight	kg	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	145-545
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	Φ400/150
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	3535x3200
	机床总高 Height	mm	3275
	机床净重 Net Weight	kg	8500
	电力需求 Power requirement	kVA	40

GMU-500

天车龙门结构加工中心

Gantry structure machining center

GMU-500采用创新的天车龙门式高刚性铸铁结构，为设备的高速、高精度与高稳定性奠定了坚实基础。其核心配置包含：16000rpm电主轴、X/Y/Z 轴全闭环光栅尺及摇篮式直驱转台，确保了卓越的加工性能，定位精度高达0.005mm，重复定位精度达0.003mm。该机型特别擅长中型模具、汽车零部件等复杂零件的精密高效加工，通过一次装夹即可完成多面铣削，显著提升生产效率，标配的32T平置式换刀系统，兼顾了自动化需求与运行可靠性，全面满足多样化的高端精密加工需求。

The GMU-500 five-axis machining center adopts a symmetrical gantry-type structure design, and through FEA dynamic technology, it is matched with high-performance electric spindles and gear backlash transmission, to achieve the best matching of the overall stiffness, damping and quality, with X//Z axis travel of 520/880/420mm, A/C axis rotation of ±120°/360°, the spindle speed of the equipment is 16000rpm, and it is matched with a 32T tool change system, with a tool change time of S, it can meet the core needs of high surface finish, complex contour and high response dynamic for mold processing.





工件：整流罩锁 Workpiece:Fairing lock
材料：航空铝 Material: Aviation aluminum



工件：电机 Workpiece: Motor
材料：铝合金 Material: Aluminum alloy



工件：发动机体 Workpiece: Engine block
材料：铝合金 Material: Aluminum alloy

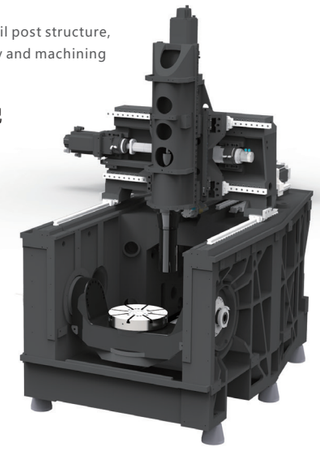


工件：叶盘 Workpiece:Leaf disc
材料：不锈钢合金 Material: Stainless steel alloy

GMU-500亮点

GMU-500 highlights

- 采用天车龙门对称式结构设计，一体式底座，大跨距导轨后置结构，优化受力分布，大幅度降低振动干扰有效提升机床运行稳定性及加工精度。
- The design adopts the symmetrical structure of the sky crane gantry, a one-piece base, a large span guide rail post structure, optimizes the distribution, and greatly reduces the vibration interference, effectively improving the stability and machining accuracy of the machine tool.
- 机床占地面积仅 3700×2040×2800mm，紧凑的机身设计能大幅节省厂房空间，尤其适配各类中小型车间的布局与生产需求。
- The machine occupies only 3700×2040×2800mm, which greatly saves the factory space and adapts the layout requirements of small and medium-sized workshops.
- 优化的三轴行程，为中型模具、汽车零部件等复杂工件提供了广阔的加工空间。
- Optimized three-axis travel, providing a broad machining space for complex workpieces such as medium-sized molds and automotive parts.
- A轴为高精度齿轮驱动，静止扭矩2592N.m。
- A axis is driven by high-precision gear, static torque 2592N.m.
- C轴为DD马达直驱，转速为80rpm。
- C axis is directly driven by DD motor, the speed is 80rpm.



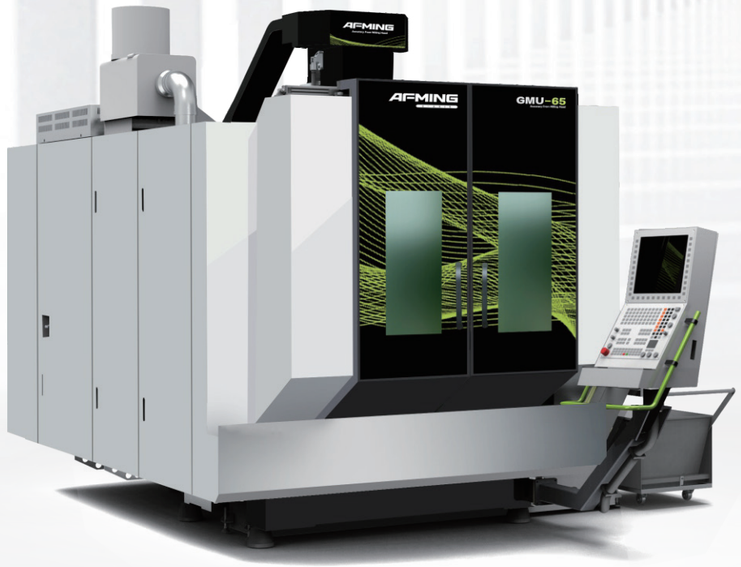
名称 Name		单位 Unit	GMU-500
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	520/880/420 (Y轴含换刀行程)
	A/C轴行程 A/C axis travel	deg	±120/360（∞）
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	48/48/36（可选24/24/24）
	最大切削进给率 Maximum cutting feed rate	m/min	20
	A/C轴快进速度 A/C axis fast feed rate	rpm	30/80
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	16000/HSK-A63
	功率 Power(S6-40%)	kW	27.5
	扭矩 Torque(S6-40%)	N.m	89
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.006/0.006/0.005
	A/C轴 A/C axis	ARCSEC	6/6
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.004/0.004/0.003
	A/C轴 A/C axis	ARCSEC	3/3
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	32T
	换刀时间（刀–刀） Tool change time (tool–tool)	sec	7
	刀具最大长度 Max. tool length	mm	300
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ75/Φ 125
	刀具最大重量 Max. tool weight	kg	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	100-520
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	Φ400/250
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	3700x2040
	机床总高 Height	mm	2800
	机床净重 Net Weight	kg	8000
	电力需求 Power requirement	kVA	45

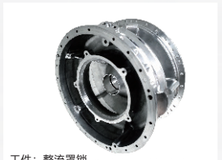
GMU-65/65DT
天车龙门结构加工中心

Gantry structure machining center

GMU-65采用天车龙门对称式结构设计，结合FEA动力学优化技术，实现了整机刚度、阻尼与质量的最佳匹配。设备搭载高性能电主轴与齿轮消隙传动系统，X/Y/Z轴行程650/950/500mm，A/C轴旋转±120°/360°可精准响应模具加工对高表面光洁度与复杂轮廓的动态核心需求。主轴最高转速达18000rpm，并匹配48T刀库与5s的快速换刀系统，确保高效连续加工。

GMU-65 adopts the design of symmetrical gantry structure and combines FEA dynamics optimization technology, which achieves the optimal matching of overall stiffness damping and mass. The equipment is equipped with high-performance electric spindle and gear backlash transmission system, with X/ Y /Z-axis travel of 650/95/500mm, A/C-axis rotation of ±120°/360°, which can precisely respond to the dynamic core needs of mold processing for surface finish and complex contour. The maximum spindle speed is up to 18000 rpm, and it is matched with 48T tool library and 5 of rapid tool change system, ensuring efficient continuous machining.





工件：整流罩锁 Workpiece:Fairing lock
材料：航空铝 Material: Aviation aluminum



工件：流体测速泵 Workpiece:Fluid flow meter pump
材料：铝合金 Aluminum alloy



工件：电机壳 Workpiece: Motor housing
材料：铝合金 Material: Aluminum alloy



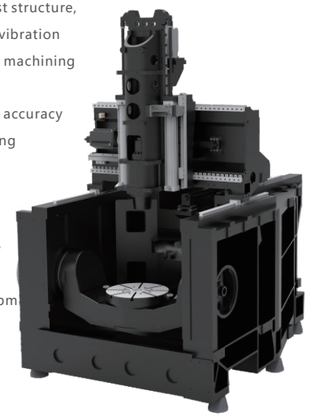
工件：叶盘 Workpiece:Leaf disc
材料：不锈钢合金 Material: Stainless steel alloy

GMU-65/65DT亮点

GMU-65/65DT highlights

- 采用天车龙门对称式结构设计，一体式底座，大跨距导轨后置结构，优化受力分布，大幅度降低振动干扰有效提升机床运行稳定性及加工精度。
- 标配丝杆中空冷却，X/Y/Z轴定位精度0.006/0.006/0.005mm，重复定位精度0.004mm。
- A/C轴定位精度/重复定位精度6″/4″。
- A轴为高精度齿轮驱动，静止扭矩3500N.m。
- C轴为DD马达直驱，转速为80rpm。（铣车可达800rpm）

- The design adopts the symmetrical structure of the sky crane gantry, a one-piece base, a large span guide rail post structure, optimizes the distribution, and greatly reduces the vibration interference, effectively improving the stability and machining accuracy of the machine tool.
- Standard hollow cooling for lead screw, positioning accuracy of X/Y/Z axis 0.006/0.006/0.05mm, repeat positioning accuracy 0.004mm.
- A/C axis positioning accuracy/repeat positioning accuracy 6/4arcsec.
- A axis is driven by high-precision gear, static torque 3500N.m.
- C axis is direct driven by DD motor, the speed is 80rpm. (milling car can reach 800rpm).

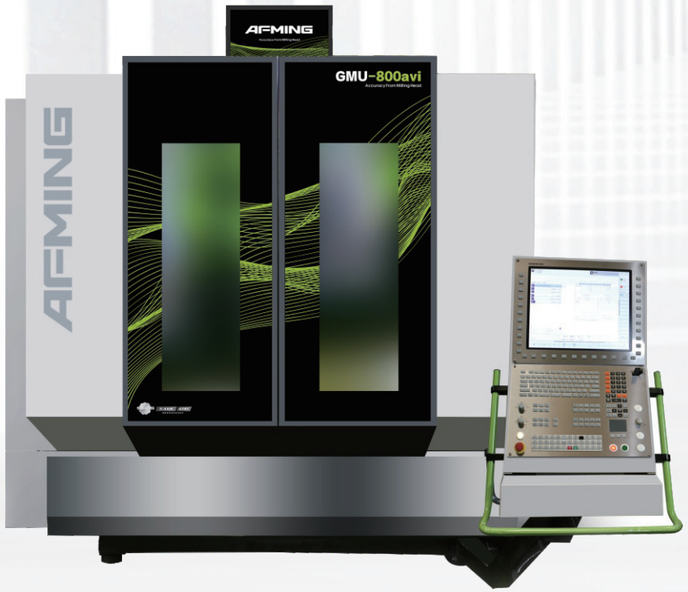


	名称 Name	单位 Unit	GMU-65	GMU-65DT
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	650/950/500 (Y轴行程含换刀行程)	650/950/500 (Y轴行程含换刀行程)
	A/C轴行程 A/C axis travel	deg	±120/360	±120/360
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	40/40/30	40/40/30
	最大切削进给率 Maximum cutting feed rate	m/min	20	20
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/80	20/800
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	18000HSK-A63	15000HSK-A63
	功率 Power(S6-40%)	kW	37.5	22.5
	扭矩 Torque(S6-40%)	N.m	130.6	107.5
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.006/0.006/0.006	0.006/0.006/0.006
	A/C轴 A/C axis	ARCSEC	6/6	6/6
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.004/0.004/0.004	0.004/0.004/0.004
	A/C轴 A/C axis	ARCSEC	4/4	4/4
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	48T	48T
	换刀时间（刀–刀） Tool change time (tool–tool)	sec	5	5
	刀具最大长度 Max. tool length	mm	250	250
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ75/Φ125	Φ75/Φ125
	刀具最大重量 Max. tool weight	kg	8	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	100-600	110-610
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	Φ500/350	500/250
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	5100x4200	5100x4200
	机床总高 Height	mm	3300	3300
	机床净重 Net Weight	kg	13500	13500
	电力需求 Power requirement	kVA	57	57

GMU-800avi
天车龙门结构加工中心
Gantry structure machining center

GMU-800avi是一款专为重型铣削打造的五轴联动加工中心，通过搭载自研高性能主轴及高刚性大扭矩的齿轮传动摇篮转台，结合精准分析及优化床身结构，轻松应对各种材质的高速、高效、高精的加工要求。

GMU-800avi is a five-axis simultaneous machining center specifically designed for heavy-duty milling.Equipped with a self-developed high-performance spindle and a high-rigidity, high-torque gear-driven cradle table, and supported by precision analysis and an optimized bed structure, it readily meets the requirements for high-speed, high-efficiency, and high-precision machining of various materials.




工件：流体测速泵 Workpiece:Die parts
材料：铝合金 Material:Aluminum alloy


工件：机匣 Workpiece:Case
材料：钛合金 Material: Titanium alloy

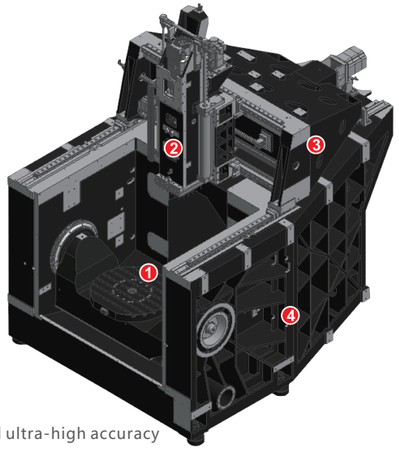

工件：叶盘 Workpiece: Leaf disc
材料：不锈钢合金 Material: Stainless steel alloy


工件：发动机体 Workpiece:Engine block
材料：铝合金 Material: Aluminum alloy

GMU-800avi亮点
GMU-800avi highlights

1. A/C摇篮工作台
搭载GTRT齿轮驱动的摇篮转台技术

1.A/C cradle table
Cradle turntable technology with GTRT gear drive



2. Z轴
通过重量级动力学优化设计，有效提升Z轴的高响应值搭配欧洲技术主轴，实现更优异的动态响应及轮廓加工精度

2. Z axis
Through the heavy dynamic optimization design, the high response value of Z-axis and European technology spindle can be effectively promoted to achieve better dynamic response and contour machining accuracy

3. 横梁
出色的动态性能及超高精度

3. B eams
Excellent dynamic performance and ultra-high accuracy

4. 底座
高刚性、稳定性及高效抑震一体式底座

4. T he b ase
High stiffness, stability and high-efficiency shock sup pression one-piece pedestal

	名称 Name	单位 Unit	GMU-800avi
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	850/950/550 (Y轴行程含换刀行程)
	A/C轴行程 A/C axis travel	deg	±140/360
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	32/32/20
	最大切削进给率 Maximum cutting feed rate	m/min	10
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/30
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	12000/HSK-A63
	功率 Power(S6-40%)	kW	21.7
	扭矩 Torque(S6-40%)	N.m	119
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.007/0.007/0.006
	A/C轴 A/C axis	ARCSEC	6/6
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.004/0.004/0.004
	A/C轴 A/C axis	ARCSEC	4/4
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	48T/60T
	换刀时间（刀-刀） Tool change time (tool-tool)	sec	5
	刀具最大长度 Max. tool length	mm	300
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ75/Φ125
	刀具最大重量 Max. tool weight	kg	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	180-730
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	800/1000
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	5200x3820
	机床总高 Height	mm	3570
	机床净重 Net Weight	kg	17000
	电力需求 Power requirement	kVA	60

GMU-900/900D/900T
天车龙门结构加工中心
Gantry structure machining center

GMU-900五轴联动加工中心采用天车龙门对称式结构设计，经FEA动力学优化技术，搭配高性能电主轴及齿轮消隙传动，实现整机刚度、阻尼与质量的最佳匹配，X/Y/Z轴行程900/1050/600mm，A/C轴旋转±120°/360°，设备主轴转速18000rpm，配合48T换刀系统，换刀时间5s，可对高温合金、模具钢及铸铁等材料进行高效的粗精一体加工。

GMU-900 five-axis simultaneously machining center adopts the design of gantry-type symmetrical structure, and is optimized by FE dynamics optimization technology, matched with high-performance electric spindle and gearbacklash transmission, to achieve the best matching of overall stiffness, damping and quality, X/Y/Z axis 900/1050/600mm, A/C axis rotation ±120°/360°, the main spindle speed the equipment is 18000rpm, matched with 48T tool change system, tool change time 5S, it can carry out efficient rough and fine-time machining of materials such as high-temperature alloys, mold steel and cast iron.



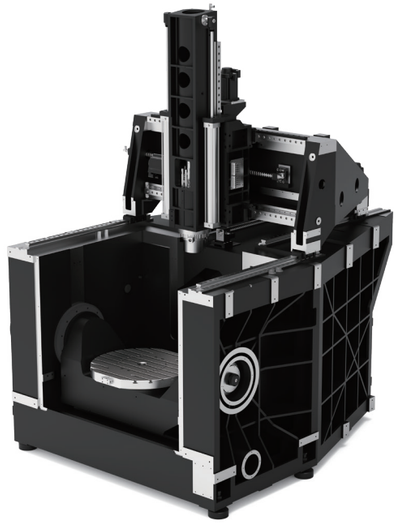

工件：叶轮 Workpiece: impeller
材料：不锈钢合金 Material: Stainless steel alloy


工件：机匣 Workpiece:Case
材料：钛合金 Material: Titanium alloy


工件：叶盘 Workpiece: Leaf disc
材料：不锈钢合金 Material: Stainless steel alloy


工件：结构件 Workpiece:Structural parts
材料：铝合金 Material: Aluminum alloy

GMU-900/900D/900T亮点
GMU-900/900D/900T highlights



1.A轴为高精度齿轮驱动
额定扭矩4142N.m，扭矩刚性超强。
1.A axis is high-precision gear-driven;
Rated torque 4142 N.m, with ultra-strong torque rigidity.

2.有效提升Z轴的高响应值
动力学优化设计，搭配高性能电主轴，选配中空丝杆有效抑制轴向热变量，实现更优异的铣车动态性能。
2. Effectively improve the high response value of the Z-axis
Kinematic optimization design, matched with high-performance electric spindle, hollow lead screw optionalEffectively suppress the axial thermal variable, achieve more excellent milling and turning dynamic performance.

3.横梁出色的结构设计及动态响应
一体式横梁大跨距强力支撑，配合高刚性导轨，实现40m/min以上的快速进给和0.6g以上的加速度显著提升加工效率。
3. The outstanding structural design and dynamic response of the beam
Integrated beam with large span and strong support, combined with high-rigidity guide rails, achieves rapid feed rates above 40m/min andacceleration 0.6g, significantly improving machining efficiency.

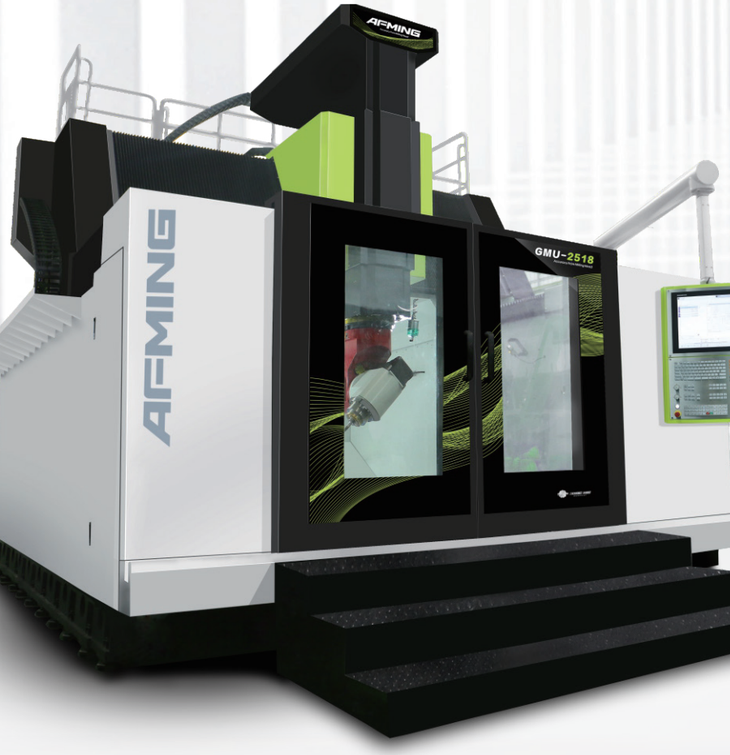
4.高效抑震一体式床身
一体式底座重量达10吨，保证整机稳定性。
4. High-efficiency shock-absorbing integrated bedplate
The integrated base weighs up to 10 tons, ensuring the stability of the entire machine.

	名称 Name	单位 Unit	GMU-900	GMU-900D	GMU-900T
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	900/1050/600 (Y轴含换刀行程)	900/1050/600 (Y轴含换刀行程)	900/1050/600 (Y轴含换刀行程)
	A/C轴行程 A/C axis travel	deg	±120/360	±120/360	±120/360
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	40/40/40	40/40/40	40/40/40
	最大切削进给率 Maximum cutting feed rate	m/min	20	20	20
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/30	20/80	20/600
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	18000HSK-A63	18000HSK-A63	15000HSK-A63
	功率 Power(S6-40%)	kW	37.5	37.5	46
	扭矩 Torque(S6-40%)	N.m	130.6	130.6	200
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.006/0.006/0.006	0.006/0.006/0.006	0.006/0.006/0.006
	A/C轴 A/C axis	ARCSEC	6/6	6/6	6/6
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.004/0.004/0.004	0.004/0.004/0.004	0.004/0.004/0.004
	A/C轴 A/C axis	ARCSEC	4/4	4/4	4/4
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	48T	48T	48T
	换刀时间（刀-刀） Tool change time (tool-tool)	sec	5	5	5
	刀具最大长度 Max. tool length	mm	380	300	300
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ75/Φ125	Φ75/Φ125	Φ75/Φ125
	刀具最大重量 Max. tool weight	kg	8	8	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	180-780	150-750	150-750
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	800/1000	800/700	750/800
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	5000x4250	5000x4250	5000x4250
	机床总高 Height	mm	3740	3740	3740
	机床净重 Net Weight	kg	17000	17000	17000
	电力需求 Power requirement	kVA	60	60	65

GMU-2518
跨轨式结构加工中心
Cross-rail structure machining center

GMU-2518为跨轨式五轴加工中心，搭载埃弗米自主研发的高刚性大扭矩的齿轮传动转台，特别适合于大型模具、汽配、机械装备、航空结构件等相关产业复杂零件的多面及五轴联动加工。

GMU-2518 is a cross-rail type 5-axis machining center, equipped with a high-rigidity and large torque gear transmissionary table independently developed by AFMING, which is particularly suitable for multi-face and 5-axis gear machining of complex parts in related industries such as large molds automotive parts, mechanical equipment, and aerospace structural parts.




工件：精密零件 Workpiece:Precision parts
材料：H136 Material:H136


工件：汽车配件 Workpiece:Auto Parts
材料：H136 Material:H136


工件：发动机缸体 Workpiece: Engine block
材料：铝合金 Material:Aluminum alloy


工件：汽车模具 Workpiece： Auto die
材料：H136 Material:H136



GTRT偏置式五轴摆头

瑞士飞速主轴

A轴驱动静态扭矩：1600N.m
C轴驱动静态扭矩：2000N.m
A轴刹车扭矩：2500N.m
C轴刹车扭矩：3500N.m
主轴转速：24000/HSK-A63
主轴功率(S6-40%)：38KW
主轴扭矩(S6-40%)：86.8N.m

A-axis drive static torque: 1600N. m
C shaft drive static torque: 2000N.m
Brake torque: 2500N. m
Brake torque on M-C axis: 3500N. m
Spindle speed: 24000/HSK-A63
Spindle power (s 1/s6 -40%) : 29/38 KW
Spindle torque (s 1/s6 -40%) : 69.4/86.8 N.m

	名称 Name	单位 Unit	GMU-2518
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	2500/1800/800
	A/C轴行程 A/C axis travel	deg	±120/±250
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	20/20/20
	最大切削进给率 Maximum cutting feed rate	m/min	10
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/20
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	24000HSK-A63
	功率 Power(S6-40%)	kW	38
	扭矩 Torque(S6-40%)	N.m	86.8
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.015/0.015/0.008
	A/C轴 A/C axis	ARCSEC	6/6
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.007/0.007/0.005
	A/C轴 A/C axis	ARCSEC	**4/4**
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	26T
	换刀时间（刀-刀） Tool change time (tool-tool)	sec	8
	刀具最大长度 Max. tool length	mm	300
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ75/Φ120
	刀具最大重量 Max. tool weight	kg	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	500-1300
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	1800x2500/8000
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	7950x5360
	机床总高 Height	mm	5600
	机床净重 Net Weight	kg	45000
	电力需求 Power requirement	kVA	80

K7
卧式结构加工中心
Horizontal structure machining center

K7为卧式结构，以高速、高精度和高附加值为目标开发的五轴加工中心，特别适合于压铸铝汽车复杂零部件的多面及五轴高速、高效加工。

K7 is a horizontal 5-axis machining center engineered for high speed, high precision, and high value-added applications. It is particularly suited for the efficient, multi-sided and 5-axis high-speed machining of complex aluminum die-cast automotive components.



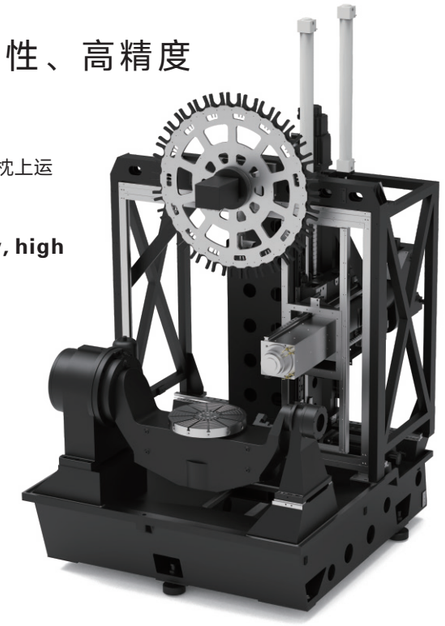

工件：电机壳体 Workpiece:Motor housing
材料：铝合金 Material:Aluminum alloy


工件：转向器 Workpiece:Steering gear
材料：铝合金 Material:Aluminum alloy


工件：减震塔 Workpiece: Shock absorber
材料：铝合金 Material:Aluminum alloy


工件：流体测速泵 Workpiece:Die parts
材料：铝合金 Material:Aluminum alloy

整机为卧式结构，确保床身结构的高刚性、高精度及高稳定性



K7为卧式结构，材质为高规格孕育铸铁，滑枕前后移动为Z轴，滑块搭载滑枕上运动为Y轴，X轴为立柱的左右移动。

Its horizontal configuration ensures inherent high rigidity, high precision, and outstanding stability of the machine bed structure.

K7 features a horizontal design constructed from high-grade inoculated cast iron.The Z-axis by the ram's forward/backward motion, the Y-axis by the saddle (which carries the ram), and the X-axis by the column's left/right travel.

	名称 Name	单位 Unit	K7
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	750/550/580
	A/B轴行程 A/B axis travel	deg	-180至+30/360（∞）
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	75/75/75
	最大切削进给率 Maximum cutting feed rate	m/min	50
	A/B轴快进速度 A/B axis fast feed rate	rpm	50/75
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	15000rpm/HSK-A63
	功率 Power(S6-40%)	kW	25
	扭矩 Torque(S6-40%)	N.m	60
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.008/0.008/0.008
	A/C轴 A/C axis	ARCSEC	12/12
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.006/0.006/0.006
	A/C轴 A/C axis	ARCSEC	8/8
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	40T
	换刀时间（刀-刀） Tool change time (tool-tool)	sec	3.5
	刀具最大长度 Max. tool length	mm	380
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ80/Φ150
	刀具最大重量 Max. tool weight	kg	8
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	-50-500
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	500-250
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	5800x2530
	机床总高 Height	mm	3630
	机床净重 Net Weight	kg	9500
	电力需求 Power requirement	kVA	50

CMX-95U/110U
箱中箱结构加工中心

Box in box structure machining center

CMX-95U/110U天车式箱中箱五轴联动加工中心，采用FEA动力学优化技术与双齿轮消隙传动系统，实现了整机刚度、阻尼与质量的最佳匹配。设备X/Y/Z轴行程达1100/1100/750mm，A/C轴旋转范围为+140°/360°，主轴最高转速20000rpm。配合40T刀库（换刀时间7s），能够高效加工钛合金等难切削材料，满足模具行业对高表面精度与复杂轮廓的严苛加工需求。

CMX-95U/110U gantry-type box-in-box five-axis machining center, adopting gantry- box-in-box structure and FEA dynamics optimization technology, matched with dual gear backlash transmission, to achieve the best match of overall stiffness, damping and mass. The travel of/Y/Z axis is 1100/1100/750mm, the A/C axis rotates ±140°/30°. The equipment spindle speed is up to 20000rpm, matched with 40t tool changing system, the tool changing time is 7, it can efficiently process titanium alloy and other difficult-to-machine materials, to meet the needs of high surface precision and complex profile machining of mold.









工件：壳体零件
材料：铝合金

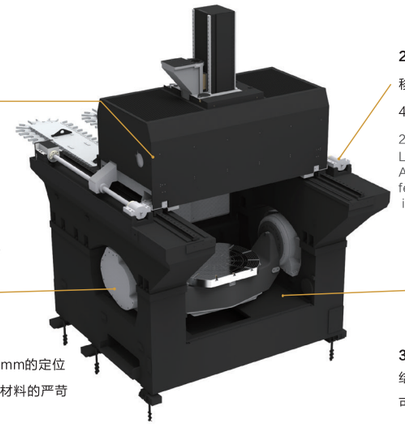


工件：结构件 Workpiece:Structural parts
材料：铝合金 Material: Aluminum alloy

CMX-95U/110U亮点

CMX-95U/110U highlights





1.采用先进“箱中箱”对称式设计结构

热对称“箱中箱”结构因环境温度变化，产生热涨冷缩而使机床产生热变形小。

1.Advanced symmetrical "box in box" design structure is adopted;
The thermal symmetrical "box in box" structure produces little thermal deformation of the machine tool due to thermal expansion and contraction caused by changes in the ambient temperature.

2.动态响应优化

移动部件轻量化设计，搭配Y轴、A轴双驱，配合高刚性导轨实现40m/min以上的快速进给和0.6g以上的加速度，显提升加工效率。

2. Dynamic response optimization
Lightweight design of moving parts, with dual drive of Y-axis and A-axis, in combination with high-rigidity guide rails, achieves rapid feed above 40m/min and accelerations above 0.6g, significantly improving machining efficiency.

4.A轴搭载双驱齿轮传动

可实现旋转摆动工作台承重1500kg工件直径1200mm的定位精度达微米级，可满足高温合金、钛合金等难切削材料的严苛要求。

4.A shaft with double drive gear transmission;
The positioning accuracy of the rotary and swing workbench can reach the micron level, which can meet the strict requirements of difficult-to-machine materials such high-temperature alloys and titanium alloys. The load-bearing capacity of the workbench is 1500kg, and the diameter of the workpiece is 200mm.

3.振动抑制与表面质量

结合有限元模态分析，优化固有频率与阻尼结构使加工表面粗糙度可稳定控制在Ra0.8μm以内。

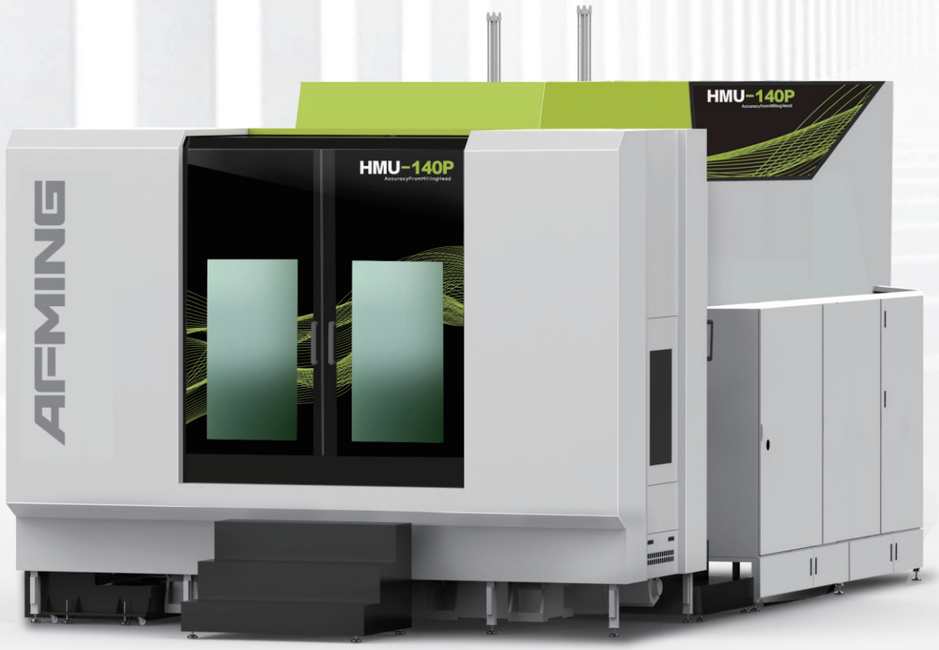
3. Vibration suppression and surface quality
Combined with finite element modal analysis，the inherent frequency and damping structure are optimized to make the surface roughness of the machined surface stably controlled within Ra.8μm.

名称 Name		单位 Unit	CMX-95U	CMX-95DT	CMX-110U	CMX-110DT
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	950/950/650	950/950/650	1100/1100/750	1100/1100/750
	A/C轴行程 A/C axis travel	deg	±140/360	±140/360	±140/360	±140/360
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	40/40/30	40/40/30	40/40/30	40/40/30
	最大切削进给率 Maximum cutting feed rate	m/min	20	20	20	20
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/80	20/600	20/30	20/500
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	20000HSK-A63	12000HSK-T63	12000HSK-A100	12000HSK-T100
	功率 Power(S6-40%)	kW	40	48	42	48
	扭矩 Torque(S6-40%)	N.m	135	292	247	292
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.006/0.006/0.006	0.006/0.006/0.006	0.006/0.006/0.006	0.006/0.006/0.006
	A/C轴 A/C axis	ARCSEC	6/6	6/6	6/6	6/6
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.004/0.004/0.004	0.004/0.004/0.004	0.004/0.004/0.004	0.004/0.004/0.004
	A/C轴 A/C axis	ARCSEC	4/4	4/4	4/4	4/4
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	60T	60T	40T	40T
	换刀时间（刀—刀） Tool change time (tool—tool)	sec	5	5	6	6
	刀具最大长度 Max. tool length	mm	400	400	450	450
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ75/Φ125	Φ75/Φ125	Φ125/Φ160	Φ125/Φ160
	刀具最大重量 Max. tool weight	kg	8	8	20	20
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	150-800	150-800	150-900	110-860
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	800/1000	800/800	1000/1500	1000/1000
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	6100x3300	6100x3300	6256x3450	6256x3450
	机床总高 Height	mm	4000	4000	4267	4267
	机床净重 Net Weight	kg	21000	21000	23000	23000
	电力需求 Power requirement	kVA	80	80	80	80

HMU-140P
卧式动柱结构加工中心
Horizontal moving column structure machining center

HMU-140P采用卧式动柱结构，搭载埃弗米自主研发的高刚性大扭矩的齿轮传动转台及单摆铣头，整机机架刚性优良，动作灵敏，轻松应对各种材质零件的高效、高精度加工要求。

HMU-140P adopts the horizontal moving column structure, carrying the gear transmission turntable with high rigidity and big torque and the single pendulum milling head, which is independently developed by AFM. Thewhole machine frame is rigid and sensitive, easy to deal with all kinds of material parts of high-efficiency, high-precision processing requirements.




工件：精密零件 Workpiece:Precision parts
材料：钛合金 Material:Titanium alloy


工件：民用航空 Workpiece:Civil Aviation
材料：高温合金 Material:superalloy

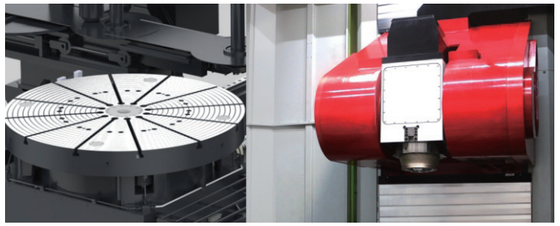

工件：民用航空 Workpiece: Civil Aviation
材料：钛合金 Material:Titanium alloy


工件：民用航空 Workpiece:Civil Aviation
材料：钛合金 Material:Titanium alloy

GTRT齿轮驱动转台、摆角铣头技术
GTRT gear driven rotary table ,swing angle milling head technology

HMU-140P转台采用机械传动GTRT技术，较常规转台驱动实现更强大的扭矩输出，更高的刚性、稳定性及更加出色的回转精度。

The HMU-140 P turntable adopts mechanical transmission GTRT technology, which can achieve more powerful torque output, higher rigidity, stability and better rotary accuracy than the conventional turntable.





名称 Name		单位 Unit	HMU-140P
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	1800/1400/1400
	A/B轴行程 A/B axis travel	deg	+60至-100/∞
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	20/20/20
	最大切削进给率 Maximum cutting feed rate	m/min	10
	A/B轴快进速度 A/B axis fast feed rate	rpm	20/15
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	10000HSK-A100
	功率 Power(S6-40%)Power (S1/S6-40%)	kW	70
	扭矩 Torque(S6-40%) Torque (S1/S6-40%)	N.m	560
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.011/0.011/0.011
	A/B轴 A/B axis	ARCSEC	8/8
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.007/0.007/0.007
	A/B轴 A/B axis	ARCSEC	5/5
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	40T
	换刀时间（刀–刀） Tool change time (tool–tool)	sec	8
	刀具最大长度 Max. tool length	mm	400
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ125/Φ200
	刀具最大重量 Max. tool weight	kg	20
工作台 Workbench	主轴中心到工作台距离（立式状态） Distance from spindle center to workbench (vertical position)	mm	-15-1385
	主轴中心到工作台距离（卧式状态） Distance from spindle center to workbench (horizontal position)	mm	-316-1084
机床尺寸 Machine Size	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	Φ1400/3000
	占地面积（长x宽） Floor space(LXW)	mm	6900x5600
	机床总高 Height	mm	5200
	机床净重 Net Weight	kg	33000
	电力需求 Power requirement	kVA	110

HMU-140U
头台分离式结构加工中心

Independent head and table machining center

HMU-140U是一款以高钢性、高速、高精度和高附加值为定位开发的卧式五轴联动加工中心，广泛应用大型模具、汽配、产业机械、民用航空结构件等相关产业复杂零件的多面及五轴联动加工。

HMU-140U is a horizontal five-axis machining center developed with high rigidity, high speed, high precision and high added value as its. It is widely used in the multi-face and five-axis machining of complex parts in related industries such as large molds, auto parts, industrial machinery, and civil structure parts.





工件：电机壳体 Workpiece:Motor housing
材料：铝合金 Material:Aluminum alloy



工件：转向器 Workpiece:Steering gear
材料：铝合金 Material:Aluminum alloy



工件：减震塔 Workpiece: Shock absorber
材料：铝合金 Material:Aluminum alloy



工件：流体测速泵 Workpiece:Die parts
材料：铝合金 Material:Aluminum alloy

HMU-140U五轴联动加工中心

HMU-140U five-axis machining center

采用创新的卧式头台分离式结构，主轴头与工作台独立运动，加速度和响应速度大幅提升，有效减少加工工程中的振动，提供极高的稳定性和刚性。

45° 非正交万能铣头，实现立卧转换加工，配合齿轮传动的摆头转动轴，拥有更强的机械刚性和更大的加工范围。

Adopt innovative horizontal independent head and table structure, spindle head and workbench move independently, acceleration and response speed are greatly improved, effectively reducing vibration in the mach process, providing extremely high stability and rigidity.

45° non-orthogonal universal milling head, which can achieve vertical and horizontal conversion machining, with the swing head rotating shaft matched with gear transmission has stronger mechanical rigidity and larger machining range.

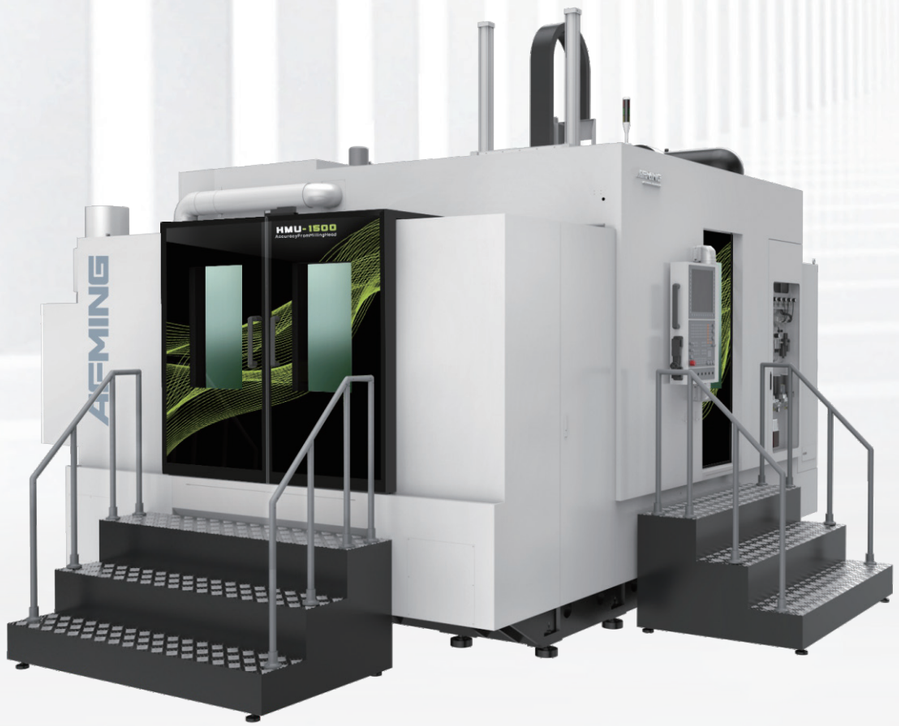


名称 Name		单位 Unit	HMU-140U
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	1300/1250/1000
	B/C轴行程 B/C axis travel	deg	-10至+180/360
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	40/40/40
	最大切削进给率 Maximum cutting feed rate	m/min	20
	B/C轴快进速度 B/C axis fast feed rate	rpm	30/15
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	5000/HSK-A100
	功率 Power(S6-40%)	kW	38
	扭矩 Torque(S6-40%)	N.m	950
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.008/0.008/0.008
	B/C轴 B/C axis	ARCSEC	8/8
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.005/0.005/0.005
	B/C轴 B/C axis	ARCSEC	5/5
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	40T
	换刀时间（刀-刀） Tool change time (tool-tool)	sec	5
	刀具最大长度 Max. tool length	mm	400
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ120Φ250
	刀具最大重量 Max. tool weight	kg	20
工作台 Workbench	主轴中心到工作台距离（立式状态） Distance from spindle center to workbench (vertical position)	mm	90-1090
	主轴中心到工作台距离（卧式状态） Distance from spindle center to workbench (horizontal position)	mm	142-1142
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	1400/3000
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	7200x5300
	机床总高 Height	mm	4520
	机床净重 Net Weight	kg	33000
	电力需求 Power requirement	kVA	110

HMU-1500
卧式结构加工中心
Horizontal structure machining center

HMU-1500采用卧式结构，搭载埃弗米自主研发的高刚性大扭矩的齿轮传动转台，整机机架刚性优良，响应迅捷，精度稳定，系民用航空类钛合金、高温合金及其它大中型复杂零件加工的利器。

The HMU-1500 features a horizontal structure, equipped with AFMING independently developed gear-driven rotary table known for its high rigidity and high torque. The machine frame offers excellent rigidity and rapid response, ensuring stable precision. It is an ideal machine for machining civilian aerospace titanium alloys, superalloys, and other medium-to-large complex components.



典型零件


行业：精密零件 Workpiece:Precision parts
材料：钛合金 Material:Titanium alloy

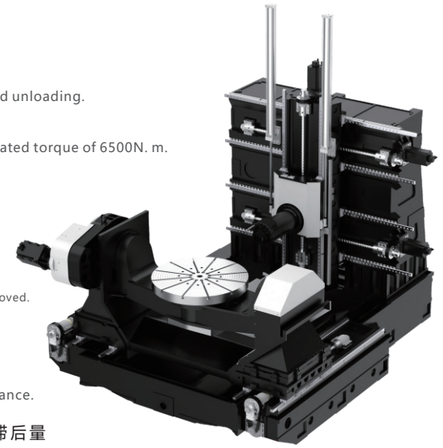

行业：民用航空 Workpiece:Civil Aviation
材料：不锈钢 Material:Stainless steel


行业：精密零件 Workpiece: Precision parts
材料：铝合金 Material:Aluminum alloy


行业：民用航空 Workpiece:Civil Aviation
材料：钛合金 Material:Titanium alloy

HMU-1500卧式五轴联动加工中心采用墙式结构，大拖板前后移动为X轴，铣头箱搭载主轴上下运动为Y轴

The HMU-1500 horizontal five axis simultaneous machining center adopts traveling column structure, with the large drag plate moving forward and backward as the X-axis, and the milling head box equipped with a spindle moving up and down as the Y-axis



- 主轴头长：850mm，适合壳体内腔深入加工。
  Spindle head length: 850mm, suitable for deep processing of the inner cavity of the shell.
- 卧式结构更方便铁屑排出与上下料。
  The horizontal structure is more convenient for iron filings to be discharged and for loading and unloading.
- A轴最大扭矩搭载独创齿轮驱动结构，额定扭矩达到6500N. m。
  The maximum torque of the A-axis is equipped with an innovative gear drive structure, with a rated torque of 6500N. m.
- 三轴直线位移速度40和60m/min。
  Three axis linear displacement speeds of 40 and 60m/min.
- 三轴加速度达到0.6g。
  The three-axis acceleration reaches 0.6g.
- 采用有限元分析和动力学优化，极大提升整机的性能。
  By using finite element analysis and dynamic optimization, the performance of the entire machine is greatly improved.
- 整机进行静态和模态分析极大提升机床的静态和动态特性以确保机床的整体刚性和稳定性及动态性。
  The static and modal analysis of the entire machine greatly improves the static and dynamic characteristics of the machine tool to ensure its overall rigidity, stability, and dynamic performance.
- 提高进给驱动系统的固有频率与截止频率，有效减少定位时间和进给系统的滞后量实现高响应的动态性能及高速加工轮廓精度。
  By increasing the natural frequency and cutoff frequency of the feed drive system, the positioning time and hysteresis of the feed system can be effectively reduced, achieving high response dynamic performance and high-speed machining contour accuracy.

名称 Name		单位 Unit	HMU-1500	HMU-1500M
加工区域 Processing area	X/Y/Z轴行程 X/Y/Z axis travel	mm	1600/1600/1200	1600/1600/1200
	A/C轴行程 A/C axis travel	deg	±120/360（∞）	±120/360（∞）
进给系统 Feeding system	X/Y/Z轴快速位移 X/Y/Z-axis rapid displacement	m/min	40/40/40	60/60/60
	最大切削进给率 Maximum cutting feed rate	m/min	20	20
	A/B轴快进速度 A/B axis fast feed rate	rpm	20/50	20/50
主轴（标配） Spindle (standard)	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	15000HSK-A100	15000HSK-A100
	功率 Power(S6-40%)Power (S1/S6-40%)	kW	48	48
	扭矩 Torque(S6-40%) Torque (S1/S6-40%)	N.m	305	305
定位精度 Positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.01/0.01/0.01	0.01/0.01/0.01
	A/C轴 A/C axis	ARCSEC	12/12	12/12
重复定位精度 Repeat positioning accuracy	X/Y/Z轴 X/Y/Z axis	mm	0.008/0.008/0.008	0.008/0.008/0.008
	A/C轴 A/C axis	ARCSEC	10/10	10/10
自动换刀系统 Automatic tool change system	刀库容量 Tool magazine capacity	pcs	40T	40T
	换刀时间（刀-刀） Tool change time (tool-tool)	sec	3.5	3.5
	刀具最大长度 Max. tool length	mm	500	500
	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ125/Φ200	Φ125/Φ200
	刀具最大重量 Max. tool weight	kg	20	20
工作台 Workbench	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	170-1370	170-1370
	工作台尺寸/最大承重 Table size/maximum load capacity	mm/kg	1250/1000	460/1000
机床尺寸 Machine Size	占地面积（长x宽） Floor space(LXW)	mm	7700x5540	7700x5540
	机床总高 Height	mm	5000	5000
	机床净重 Net Weight	kg	35000	35000
	电力需求 Power requirement	kVA	125	125

服务体系

SERVICE SYSTEM



快速响应

快速响应客户的需求，收集客户的现场信息并记录故障，给出保养合理化建议。

Rapid Response

Responding quickly to customers' needs, collecting information from the customer's site and documenting faults, and Giving maintenance rationalization suggestions.



快速处理

快速处理，帮助客户第一时间将设备调整到最佳状态。

Fast processing

Fast processing, helping customers to adjust their equipment to the best condition at the first time.



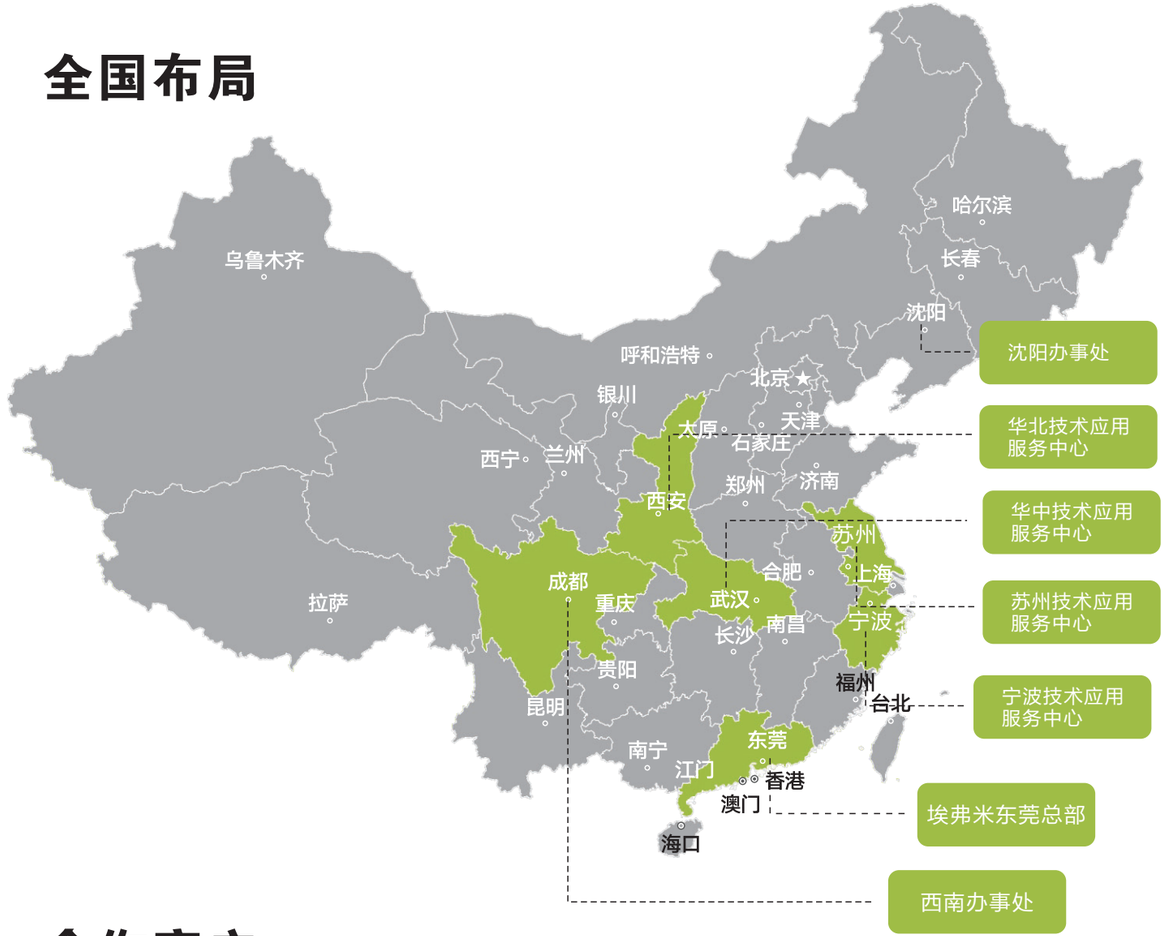
快速装调

快速完成设备的安装调试。

Quick set-up

Quickly complete the installation and debugging of equipment.

全国布局



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超过800家客户见证并长期支持

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浙江艾彼科技 | 成都和鸿科技 | 金三维模具 | 赛豪模具 | 星科模具