

公司总部及各办事处联系方式



中国华南制造基地

South China Manufacture Basis

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智能数控装备

CNC SMART EQUIPMENT

股票代码 Stock Code 300607

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01

CNC智能数控装备

CNC intelligent numerical control equipment

公司简介、企业文化、资质评定、发展历程

Company profile、Company Culture、Qualification evaluation、Development History



Company profile

公司简介

广东拓斯达科技股份有限公司（简称：拓斯达，股票代码：300607）是首家登陆创业板的广东省机器人骨干企业。公司成立于2007年，总部位于广东省东莞市大岭山镇，注册资本4.26亿元。

拓斯达坚持“让工业制造更美好”的企业使命，通过以工业机器人、CNC、注塑机为核心的智能装备，以及控制、伺服、视觉三大核心技术，打造以核心技术驱动的智能硬件平台，为制造企业提供智能工厂整体解决方案。截至2021年6月，公司已在全国设有近50家办事处，触达客户超20万家，服务客户超15000家。

拓斯达是国家高新技术企业，建有广东省3C智能机器人与柔性制造企业重点实验室、广东省工业机器人与智能装备驱动一体化系统及应用技术工程技术研究中心、广东省企业技术中心、广东省博士工作站。公司2018年荣获“东莞市政府质量奖”，2019年纳税首次破亿，并荣获“2019年度东莞市效益贡献奖”，“2019年度东莞市规模效益成长性排名前20名工业企业”，2020年荣获“东莞市先进集体”等荣誉。

截至2021年6月，拓斯达拥有授权专利464项，其中发明专利26项；各类软件著作权69项。公司多项产品荣获广东名牌产品、广东高新技术产品，并通过欧洲CE认证。

Guangdong Topstar Technology Co., Ltd. (abbr. Topstar, stock code: 300607) is the first GEM listed core robot enterprise in Guangdong Province. The company was founded in 2007 and is headquartered in Dalingshan Town, Dongguan City, Guangdong Province, with a registered capital of 426 million yuan.

Topstar adheres to the corporate mission of "making industrial manufacturing better", through intelligent equipment with industrial robots, CNC and injection molding machines as the core, as well as controllers, servo drives, and vision system as three core technologies create an intelligent hardware platform driven by core technologies, and provide manufacturing enterprises with turnkey solutions for smart factories. As of June 2021, the company has set up close to 50 offices across the country, reaching more than 200,000 customers and serving more than 15,000 customers.



15000+
服务企业客户



自主研发
能力强



社会
认可度高



坚持
“让工业制造更美好”

Topstar is a national high-tech enterprise. It has established the Guangdong Key Laboratory of 3C Intelligent Robots and Flexible Manufacturing Enterprises, Guangdong Engineering Technology Research Center for Industrial Robots and Intelligent Equipment Driving and Control Integrated System and Application Technology, Guangdong Enterprise Technology Center, Doctoral Workstation of Guangdong Province. In 2018, Topstar won the "Dongguan Municipal Government Quality Award". In 2019, the tax payment exceeded 100 million for the first time, and awarded "2019 Dongguan City Benefit Contribution Award" and "2019 Dongguan City Scale Efficiency Growth Ranking Top 20 Industrial Enterprises". In 2020, Topstar won the "Dongguan Advanced Collective" and other honors.

As of June 2021, the company has 464 authorized patents, including 26 invention patents; 69 software copyrights. Many of the company's products have been awarded Guangdong Famous Brand Products, Guangdong High-tech Products, and have passed CE certificate.

Company Culture

企业文化

企业使命

Enterprise Mission

让工业制造更美好!

Make Industrial Manufacturing Better!

企业定位

Enterprise Positioning

专注建立工业机器人、自动化解决方案生态圈的全球智能制造综合服务平台。

Global intelligent manufacturing service platform, focus on industrial robots and automation solutions.

企业愿景

Enterprise Vision

助力100万制造企业实现智能制造;助力100万工程师服务于智能制造。

To help millions of manufacturing enterprises to realize intelligent manufacture; To help millions of engineers serving the intelligent manufacture.

核心价值观

Core Values

全心全意为客户服务!

群体奋斗群体成功!

Wholeheartedly for Customer Service!

Together We Strive, Together We Achieve!

组织气质

Team Spirit

开放协同, 因我不同。

Cooperate but respect personality

拓斯达不是雇佣和解雇型企业, 而是打造创业型平台, 集众人之力, 实现凭一己之力所无法达成目的的平台, 其核心精神是“分享”。——《拓斯达宣言》

TOPSTAR is not a hiring or dismissal enterprise, but aim to create a business platform, which setting the power of everyone to achieve the goal which can not be achieved by their own. Its core spirit is "share".



Qualification evaluation

资质评定

拓斯达坚持技术为王的经营理念, 先后取得了各项高新技术企业的资质和认证, 为客户提供先进和高端的产品。

Topstar adheres to the bussiness philosophy, which puts technology in the dominant position. It has successively obtained many qualifications and certifications of high-tech enterprises, and provided the most advan and high-end product to customers.

国家级高新技术企业认证、欧盟CE认证、ISO9001质量体系认证、广东省名牌机器人、广东省“守合同重信用”企业、粤港澳大湾区联合创新中心创新基地、累计产品技术专利258项、广东省级企业技术中心、华南理工大学产学研合作基地、校企合作实践基地...

National high-tech enterprise certification、CE Certification、ISO9001 Quality System Certification、Guangdong Province Top Brand Robot、Guangdong Province "contracts observing and credit honoring" enterprises、Guangdong-Hong Kong-Macao Greater Bay Area Joint Innovation Center、258 technology patenes for products、Guangdong province enterprise technology center、South China University of technology production and research cooperation base、School-enterprise cooperation practice base....



2019年最具成长性
高端制造产业上市公司

Development History

发展历程

2008

创新研发辅机，开拓市场

研发出新型节能三机一体机；
研发出直接冷却160度水温机，降温速度更快。

2008

Innovative R&D auxiliary machines to expand the market

Developed a new energy-saving 3 in 1 heatless dehumidifier;
Developed a direct cooling 160 degree water temperature machine, and the cooling rate is faster.

2009

提高产品自产，客户达1000家

成立拓斯达商学院；
市场成交客户量突破一千家；
成立钣金厂，提高自产率，产能再次提升。

2009

Improve product self-production, customers up to 1000

Established the Topstar Business School;
The number of customers in the market exceeded one thousand;
The establishment of a sheet metal factory to increase self-yield and increase production capacity.

2010

开发机械手，布局全国市场

开发机械手产品，成为自动化系统输出全套产业链运营商；
无锡分公司成立，辐射华东，开启全国市场布局；
与清华大学合作，引入先进的企业管理理念。

2010

Development linear robot, layout of the national market

Develop robot products and become a complete industrial chain operator for automation system output;
The establishment of Wuxi Branch, radiating East China, opened the national market layout;
Collaborate with Tsinghua University to introduce advanced corporate management concepts.

2007

50万注册成立拓斯达

拓斯达以50万元注册资金注册成立；
提出“打造一流品质”的企业和产品定位；
制定出行业内部标准，重新定义行业高端产品标准。

2007

500,000 yuan registered to establish Topstar

Topstar was registered with a capital of 500,000 yuan;
Put forward the enterprise and product positioning of "building world-class quality";
Develop the industry's first internal standard and redefine industry high-end product standards.

2011

注塑自动化全套解决方案运营商

自主研发的三轴、五轴伺服机械手下线，获得客户广泛好评；
确立整体注塑自动化解决方案，提出主动服务理念；
成功举办“华南塑料工业高端论坛”。

2011

Injection Automation Complete Solution Operator

The self-developed three-axis and five-axis servo manipulators went offline and received wide acclaim from customers;
Establish an overall injection molding automation solution and propose an active service concept;
Successfully held the "High-end Forum on Plastics Industry in South China".

2012

认证高新企业，布局全球市场

获得国家高新技术企业称号；
布局全球市场，产品销往东南亚、欧洲、南美洲等地市场；
与华南理工大学签署产学研合作协议。

2012

Certified high-tech companies, global market layout

Obtained the title of national high-tech enterprise.
Layout of the global market, the products are sold to markets in Southeast Asia, Europe, South America, etc.;
Signed an industry-university-research cooperation agreement with South China University of Technology.

2013

引入战略投资，多领域自动化

投资6亿扩产自动化制造基地，项目纳入东莞市重点建设项目；
组建自动化项目部，布局打磨、冲压、压铸等多领域自动化进行股份制改革，核心员工持股。

2013

Introducing strategic investment, multi-domain automation

Invested 600 million expansion production automation manufacturing base, the project was included in the key construction projects in Dongguan;
Set up an automation project department, layout polishing, stamping, die casting and other multi-field automation;
The shareholding system reform was carried out and the core employees held shares.

2014

挂牌新三板，响应机器换人

挂牌新三板，实现同步定增；
率先响应机器换人政策，提出一年回本的自动化理念；
华北、华中营销中心成立，全国新设20余办事处，推动自动化改革。

2014

Listed New OTC(Over the Counter) Market, responsive machine alternative manual strategy

The new three boards will be listed for synchronous growth;
Take the lead in responding to the machine alternative manual strategy and propose a one-year automation concept;
The North China and Central China Marketing Centers were established, and more than 20 new offices were set up across the country to promote automation reform.

2015

掌握核心技术，研发工业机器人

掌握控制系统核心技术，布局工业机器人研发；
形成多领域工业机器人自动化、整厂水电气系统、配套设备智能体系。

2015

Mastering core technologies and developing industrial robots

Master the core technology of the control system and lay out the development of industrial robots;
Forming multi-domain industrial robot automation, whole plant water and electricity systems, and supporting equipment intelligent systems.

2016

整合上下游资源，打造智能生态

自主研发六轴工业机器人本体上市；
提出打造软件研发、本体设计、集成方案、整厂自动化三位一体的机器人生态圈理念；
整合上下游资源，与ABB签订战略合作协议，深入展开合作。

2016

Integrate upstream and downstream resources to create a smart ecosystem

The self-developed six-axis industrial robot body was launched;
The idea of creating a three-in-one robot ecosystem concept of software R&D, ontology design, integration scheme and whole plant automation is proposed;
Integrate resources, sign strategic cooperation agreements with ABB, and carry out in-depth cooperation.

2017

登陆创业板，扩大员工持股

创业板上市，股票代码300607扩大员工持股200余名；
打造以工业机器人为核心，软硬件结合的智能制造综合服务体系，通过四部两院组织架构输出智能制造整体解决方案；
导入SAP信息化管理及任职资格体系，提升管理团队效能。

2017

Landing on the GEM, expand employee holdings

GEM listed, stock code 300607. Expanded employee holdings of more than 200;
We will build an intelligent manufacturing integrated service system with industrial robots as the core and combining software and hardware. We will output intelligent manufacturing overall solutions through four departments and two organizations;
Import SAP information management and qualification system to improve management team effectiveness.

2018

入驻新园区，赋予新使命

发布新使命、愿景、价值观，确定新组织气质；
迁入全新的大塘朗园区，首次举办全球开放日；
优化产业布局，收购野田智能、筹建江苏拓斯达、置地松山湖与沙田。

2018

Entering the new park, giving new mission

Publish new missions, visions, values, and determine new organizational temperament;
Moved to the new Datanglang Park for the first time to hold the Global Open Day;
Acquired Noda Intelligence, prepared Jiangsu Topstar, Landsong Songshan Lake and Shatian to optimize industrial layout.

2019

拿结果 强组织 做价值

1. 苏州生产研发基地正式开工；
2. 成立驼驮科技，布局产业互联网；
3. 公开增发募集资金总额6.5亿元；
4. 拓星辰系列上市，拓星河1号已进入Beta阶段；
5. 加强人才队伍建设引入博士3人，硕士研究生24人。

2019

Result-oriented, Organization strengthening, Value creation

1. Construction of Suzhou production, R & D base officially started;
2. Established TuoTuo Technology, laying out the industrial Internet;
3. Publicly raised funds of 650 million Yuan;
4. T-star series robots are ready to the market, T-galaxy has entered Beta phase;
5. Strengthen the talent team building, introduced 3 doctors and 24 masters.

2020

新战略 新赛道

1. 提出渠道与产品双轮驱动的智能制造综合服务平台；
2. 通过收购，全新注塑机产品面市；
3. 董事长吴丰礼参加习近平主持召开的企业家座谈会；
4. 拟发行可转债募资6.7亿元用于建设智能制造整体解决方案研发及产业化项目；
5. 服务客户数突破10000家。

2020

New strategy and new track

1. Propose an intelligent manufacturing integrated service platform with dual wheel drive for channels and products;
2. Through the acquisition, new injection molding machine products on the market;
3. Participate in the entrepreneurs' forum hosted by Xi Jinping;
4. Issue convertible bonds to raise RMB 670 million yuan for the construction of the research & development of intelligent manufacturing one-stop solution and industrialization projects;
5. Serve for over 10000 customers.

2021

强战略 平台化

1. 提出“以核心技术驱动的智能硬件平台”战略定位；
2. 自动化设备综合服务平台“集成侠”上线；
3. 可转债再融资6.7亿。

2021

Intensify strategy and platformization

1. Proposed the strategic positioning of "Intelligent Hardware Platform Driven by Core Technology";
2. "Integration Expert", an integrated service platform for automation equipment, goes online;
3. Convertible bonds refinancing 670 million.

02

秉承工匠精神，技术驱动未来

Adhering to the spirit of craftsmanship, technology drives the future

钻攻中心特点、立式加工中心三线系列特点、立式加工中心两线一硬系列特点

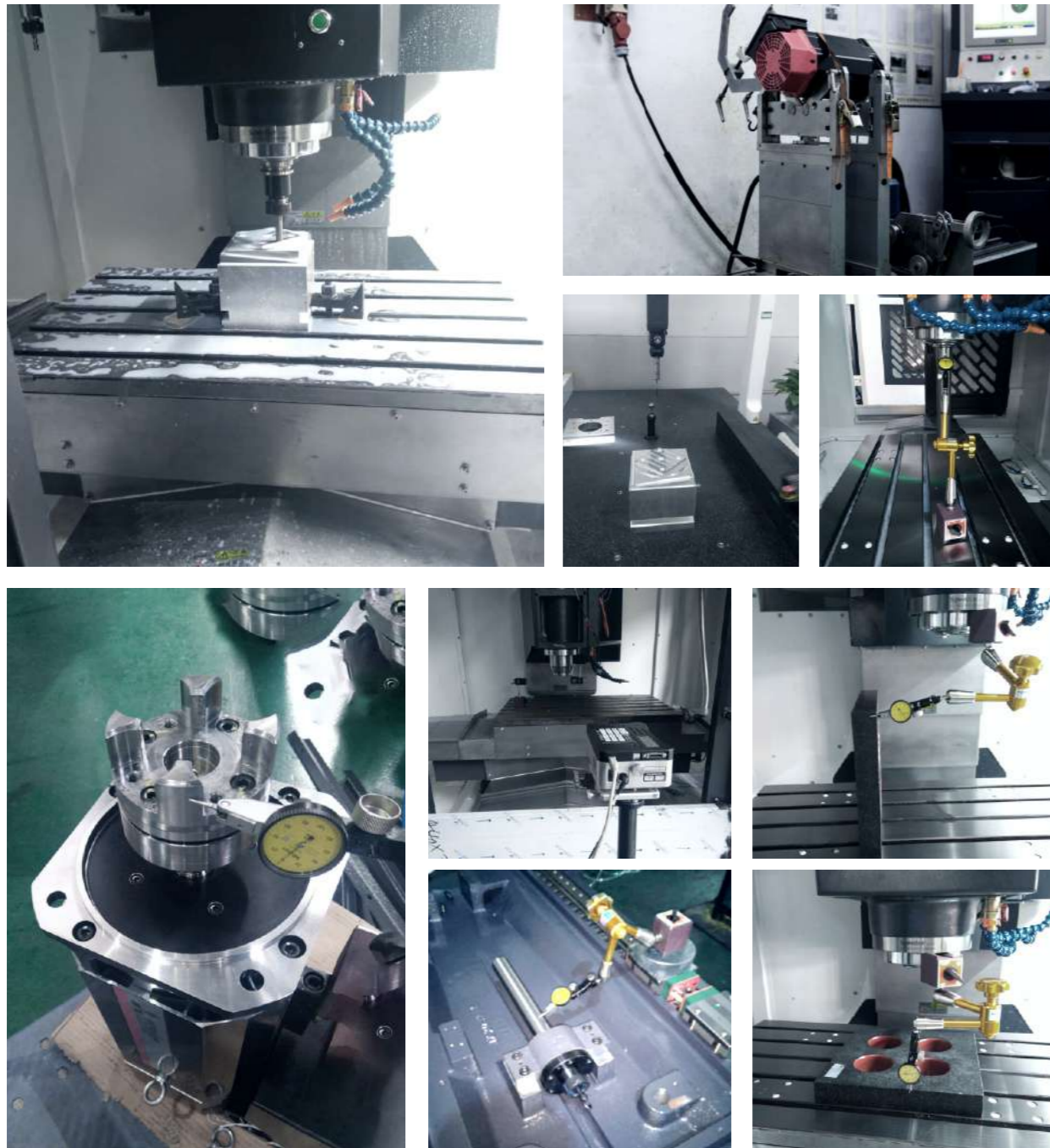
Characteristics of Drilling Center、Features of Vertical Machining Center Three-line Series、
Features of two-line and one-hard series of vertical machining centers

Adhering to the spirit of craftsmanship, technology drives the future

秉承工匠精神，技术驱动未来

拓斯达以无以伦比的坚持与创新，以掌握核心技术和革新为动力；依托多年的行业经验，为您提供高效的零件加工自动化解决方案。

Topstar takes unparalleled persistence and innovation, and is driven by mastering core technology and technological innovation; Relying on years of industry experience, we will provide you with efficient parts processing automation solutions.



Technology

技术工艺

- | | | | |
|--|---|---|---|
| 1 光机检测IPQC1
Optical machine inspection IPQC1 | 2 刀库安装
Tool library installation | 3 主轴电机动平衡
Spindle motor dynamic balance | 4 三轴马达安装
Three-axis motor installation |
| 5 护罩安装
Protective gard installation | 6 钣金安装 A
Sheet metal installation A | 7 电箱安装
Electric box installation | 8 IPQC2 |
| 9 线材安装
Wire installation | 10 通电调试
Power-on debugging | 11 刀库调试
Tool library debugging | 12 IPQC3 |
| 13 三轴移动磨合72H
Tool library three-axis mobile running-in 72H | 14 刀库换刀测试48H
Tool change test 48H | 15 参数优化
Parameter optimization | 16 镭射检测
Laser detection |
| 17 钣金装配 B
Sheet metal assembly B | 18 几何精度检测
Geometric accuracy detection | 19 手持在线主轴动平衡检测
Handheld online spindle dynamic balance detection | 20 加工试切
Processing trial cutting |
| 21 三次元试切精度检测
Three-dimensional trial cutting accuracy detection | 22 试水
Water testing | 23 IPQC4 | 24 打包
Packing |

Characteristics of Drilling Center

钻攻中心特点

01.

高刚性BT30锥度直接式直驱主轴，具备刚性、高稳定性铣削的小型加工中心，拥有高效率刚性攻牙、高速钻孔性能。

High rigidity BT30 taper direct drive main axis, a small machining center with rigidity and high stability milling, high efficiency rigid tapping and high-speed drilling performance.

02.

采用C3级精密滚珠丝杆及滚珠线轨，使用进口轴承；最大快速位移XY可达48m/min,缩短了非切削加工时间。

It adopts C3 grade precision ball screw and ball linear guide, and uses imported bearings; the maximum rapid displacement XY can reach 48m/min, which shortens the non-cutting processing time.

03.

采用了激光干涉校正技术，保证高品质机床定位精度、重复定位精度；采用了动平衡调试校正技术，使机床具有高质量动态稳定性。

The laser interference correction technology is adopted to ensure the positioning accuracy and repeat positioning accuracy of high-quality machine tools; the dynamic balance debugging and correction technology is adopted to make the machine tool have high-quality dynamic stability.

项目 Item		T5	T6L	T8	
加工范围 Processing range	X轴行程 X axis stroke	mm	500	600	800
	Y轴行程 y axis stroke	mm	400	450	500
	Z轴行程 z axis stroke	mm	300	300	330
工作台 Workbench	主轴端面至工作台距离 Distance from spindle end to workbench	mm	150-450	150-450	150-480
	工作台面积 Workbench area	mm	650×400	700×420	1000×500
	最大承重 Max weight capacity	kg	250	250	350
	T型槽 (宽度×槽数×间距) T-slot (width×slot number×spacing)	mm	14×3×125	14×3×125	18×5×100
主轴 Spindle	主轴驱动方式 Spindle drive mode	\	直驱 Direct drive	直驱 Direct drive	直驱 Direct drive
	主轴转速 main axis speed	rpm	20000	20000	20000
	主轴功率 (连续/过载) Spindle power (continuous/overload)	kW	3.7/5.5	3.7/5.5	3.7/5.5
	主轴扭矩 (连续/过载) Spindle torque (continuous/overload)	N.m	14/21	14/21	14/21
	主轴锥孔 Spindle taper	\	BT30	BT30	BT30
	拉钉角度 Pull nail angle	°	45°	45°	45°
进给驱动 Feed drive	X、Y、Z轴快移速度 X, Y, Z axis rapid traverse speed	m/min	48/48/36	48/48/36	48/48/48
	X、Y、Z轴伺服电机功率 X, Y, Z axis servo motor power	kW	1.5/1.5/3	1.5/1.5/3	1.5/1.5/3
	X、Y、Z轴伺服电机转速 X, Y, Z axis servo motor speed	rpm	4000/4000/3000	4000/4000/3000	4000/4000/3000
	X、Y、Z轴丝杠直径 X, Y, Z axis screw diameter	mm	28/28/32	28/28/32	32/32/32
	线性导轨 (线轨宽/滑块数量) Linear guide rail (line rail width/number of sliders)	mm	XYZ:30×2	XYZ:30×2	XYZ:35×2
刀库 Tool library	刀库容量 Tool library capacity	把	21	21	21
	刀库形式 Tool library form	\	斗笠伺服刀库 Douli Servo Tool Magazine	斗笠伺服刀库 Douli Servo Tool Magazine	斗笠伺服刀库 Douli Servo Tool Magazine
	刀具最大直径/邻空刀 Maximum tool diameter / adjacent empty tool	mm	Φ60/Φ80	Φ60/Φ80	Φ60/Φ80
	最大刀具长度 Maximum tool length	mm	200	200	200
	刀具最大重量 Maximum tool weight	kg/把	3	3	3
	换刀时间 Tool change time	s	1.4	1.4	1.4
	定位精度 positioning accuracy	X/Y/Z轴	mm	0.008	0.008
重复定位精度 Repeated positioning accuracy	X/Y/Z轴	mm	0.005	0.005	0.005
数控系统 CNC system	\	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80	
气源压力 Air pressure	MPa	0.5-0.8	0.5-0.8	0.5-0.8	
机床电源 Machine power	V/Hz	380V/50Hz	380V/50Hz	380V/50Hz	
机床重量 Machine weight	KG	约3000	约3200	约4000	
占地面积 Floor space	mm	1760×2300	1760×2300	2480×2550	

选配 Optional

1.系统 System	<input type="checkbox"/> 三菱M80A Mitsubishi M80A <input type="checkbox"/> 西门子828D Siemens 828D <input type="checkbox"/> Fanuc Oi MF Fanuc Oi MF
2.接触式对刀仪 Contact tool setter	<input type="checkbox"/> 雷尼绍TS27R Renishaw TS27R
3.探头 Probe	<input type="checkbox"/> 雷尼绍OMP40-2 Renishaw OMP40-2
4.立柱加高 Heightened probe column	<input type="checkbox"/> 加高200mm 200mm heightened

The perfect combination of efficiency and precision

效率与精度的完美结合



高速高精直联主轴，振动小，钻孔攻牙能获得更好的效率和稳定性。

High-speed and high-precision direct-connected spindle, low vibration, drilling and tapping can obtain better efficiency and stability.

搭载伺服刀库，换刀时间短，效率高。

Equipped with servo tool magazine, short tool change time and high efficiency



密封高强度护罩，有效防护了油渍和渣屑对丝杆和导轨造成的损伤，提高丝杆导轨精度和使用寿命。

The sealed high-strength shield effectively protects the lead screw and guide rail from damage caused by oil stains and slag, and improves the precision and service life of the lead guide rail.

成熟机型设计，加宽鞍座，刚性稳定性高。

Mature model design, widened saddle, good rigidity and high stability

加宽加大型底座，提高机床切削稳定性。

Widen and large base to improve the cutting stability of the machine

Application area

应用领域

广泛应用于3C，新能源，汽车零部件等行业，应用于高速钻孔攻牙加工。

It is widely used in the processing of 3C products, aluminum alloy products, die-casting products, auto parts and so on. It's applicable for high-speed drilling and tapping processing.



Features of Vertical Machining Center Three-line Series

立式加工中心三线系列特点

01.
直接式短鼻主轴设计，采用日本进口P4级轴承，有效提升了主轴切削刚性并降低了刀具磨损。
The direct short-nosed spindle design adopts P4 bearings imported from Japan, which effectively improves the cutting rigidity of the spindle and reduces tool wear.

02.
采用预压式滚柱线轨，抗扭矩抗承载性好，C3级丝杆，拥有低启动扭矩、高效最佳传动力；加以轴承合理预拉，实现零背隙及高刚性。
Adopting preloaded roller linear rail, with good resistance to torque and load, C3 grade screw, with low starting torque, high efficiency and best transmission force; reasonable pretension of the bearing to achieve zero backlash and high rigidity.

03.
独特的结构设计，立柱采用多层交叉筋骨结构，结合大跨距设计；为机床提供了出色的刚性和抗弯扭性能，使机床具备高速运动平稳性。
Unique structural design, the column adopts a multi-layer cross rib structure, combined with a large span design; it provides the machine tool with excellent rigidity and resistance to bending and torsion, so that the machine tool has high-speed motion stability.

项目 Item		V856	V1060	V1160	V1370	V1580
加工范围 Processing range	X轴行程 X axis stroke	mm 820	1000	1100	1300	1500
	Y轴行程 y axis stroke	mm 550	600	650	700	800
	Z轴行程 z axis stroke	mm 600	600	600	700	700
工作台 Workbench	主轴端面至工作台距离 Distance from spindle end to workbench	mm 130-730	150-750	130-730	120-820	150-850
	工作台面积 Workbench area	mm 1000×550	1100×600	1200×600	1400×700	1700×800
	最大承重 Max weight capacity	kg 600	450	800	700	1200
	T型槽 (宽度×槽数×间距) T-slot (width×slot number×spacing)	mm 18×5×100	18×5×100	18×5×100	18×5×125	18×5×140
主轴 Spindle	主轴驱动方式 Spindle drive mode	\ 直驱 Direct drive	直驱 Direct drive	直驱 Direct drive	皮带 Belt	皮带 Belt
	主轴转速 main axis speed	rpm 12000	12000	12000	8000	8000
	主轴功率 (连续/过载) Spindle power (continuous/overload)	kW 7.5/11	11/15	11/15	11/15	15/18.5
	主轴扭矩 (连续/过载) Spindle torque (continuous/overload)	N.m 36/96	53/118	53/118	70/118	143/236
	主轴锥孔 Spindle taper	\ BT40	BT40	BT40	BT40	BT50
	拉钉角度 Pull nail angle	° 45°	45°	45°	45°	45°
进给驱动 Feed drive	X、Y、Z轴快速移动速度 X、Y、Z axis rapid traverse speed	m/min 36/36/36	36/36/36	36/36/36	36/36/36	24/24/20
	X、Y、Z轴伺服电机功率 X、Y、Z axis servo motor power	kW 2/2/3	3/3/3	3/3/3	3/3/3	4.5/4.5/4.5
	X、Y、Z轴伺服电机转速 X、Y、Z axis servo motor speed	rpm 3000/3000/3000	3000/3000/3000	3000/3000/3000	3000/3000/3000	3000/3000/3000
	X、Y、Z轴丝杠直径 X、Y、Z axis screw diameter	mm 40/40/40	40/40/40	40/40/40	40/40/40	50/50/50
	线性导轨 (线轨宽/滑块数量) Linear guide rail (line rail width/number of sliders)	mm XY:45×2 Z:45×3 X:35×2 YZ:45×2 XZ:45×3 Y:45×2	X:45×3 Y:45×2(4轴) Z:55×3			
刀库 Tool library	刀库容量 Tool library capacity	把 24	24	24	24	24
	刀库形式 Tool library form	\ 刀臂式刀库	刀臂式刀库	刀臂式刀库	刀臂式刀库	刀臂式刀库
	刀具最大直径/邻空刀 Maximum tool diameter / adjacent empty tool	mm $\Phi 78/(\Phi 120/150)$	$\Phi 78/(\Phi 120/150)$	$\Phi 78/(\Phi 120/150)$	$\Phi 78/(\Phi 120/150)$	$\Phi 120/\Phi 250$
	最大刀具长度 Maximum tool length	mm 300	300	300	300	400
	刀具最大重量 Maximum tool weight	kg/把 8	8	8	8	16
	换刀时间 Tool change time	s 2.5	2.5	2.5	2.5	3.6
定位精度 positioning accuracy	X/Y/Z轴	mm 0.01	0.01	0.01	0.012	0.015
重复定位精度 Repeated positioning accuracy	X/Y/Z轴	mm 0.005	0.005	0.005	0.008	0.008
数控系统 CNC system	\	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80
气源压力 Air pressure	MPa	0.6-0.8	0.6-1	0.6-1	0.6-1	0.6-1
机床电源 Machine power	V/Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
机床重量 Machine weight	KG	约5500	约5800	约6700	约7700	约11200
占地面积 Floor space	mm	2600×2720	2750×2720	3150×2910	3420×3010	4000×3240

选配 Optional		
1.系统 System		<input type="checkbox"/> 三菱M80A Mitsubishi M80A <input type="checkbox"/> 西门子828D Siemens 828D <input type="checkbox"/> Fanuc Oi MF Fanuc Oi MF
2.接触式对刀仪 Contact tool setter		<input type="checkbox"/> 雷尼绍TS27R Renishaw TS27R
3.探头 Probe		<input type="checkbox"/> 雷尼绍OMP40-2 Renishaw OMP40-2
4.立柱加高 Heightened probe column		<input type="checkbox"/> 加高200mm 200mm heightened
5.排屑机 Chip removal machine		<input type="checkbox"/> 铝合金用排屑机 Chip removal machine for aluminum alloy <input type="checkbox"/> 铁屑用排屑机 Chip removal machine for iron filings

The best tool for finishing parts, molds, and other products

零件、模具、等产品精加工最佳利器

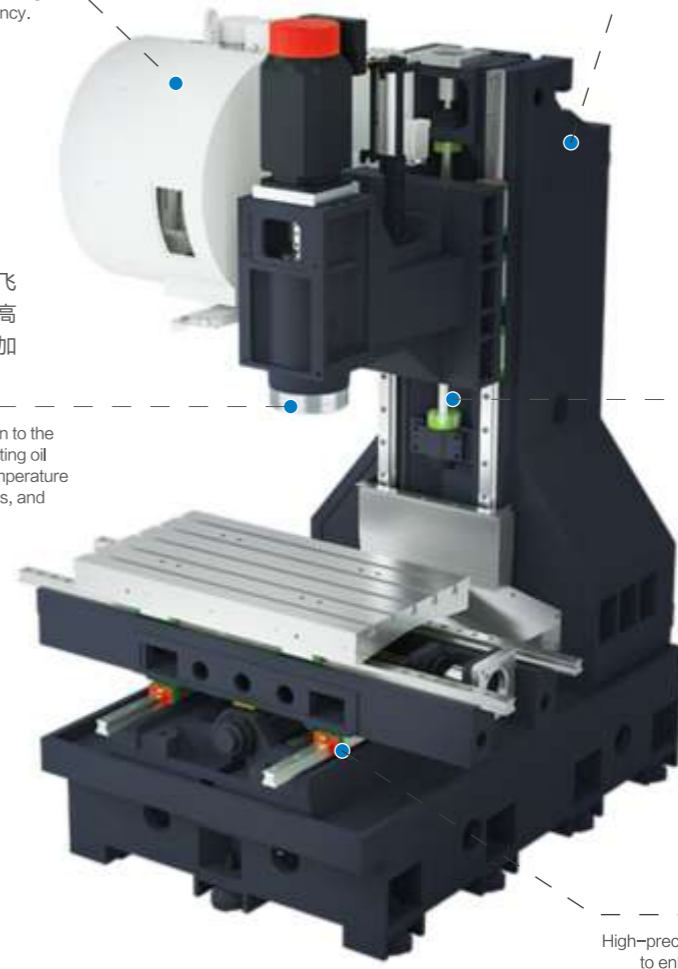
大容量ATC刀库，缩短装刀循环时间，提升加工效率。
The large-capacity ATC tool library shortens the cycle time of tool loading and improves processing efficiency.

高品质床身铸件，能承受高速运动产生的惯量。
The bed structure is sturdy and can withstand the inertia generated by high-speed motion

高精度直连主轴，搭配同飞循环油冷系统，降低主轴高速运转时产生温升现象，让加工更稳定。
High-precision direct connection to the spindle, combined with a circulating oil cooling system, reduces the temperature rise of the spindle at high speeds, and makes processing more stable

各轴采用高精密静音螺杆，热变形少、精度高。
Each axis adopts high-precision silent screw, with less thermal deformation and high precision.

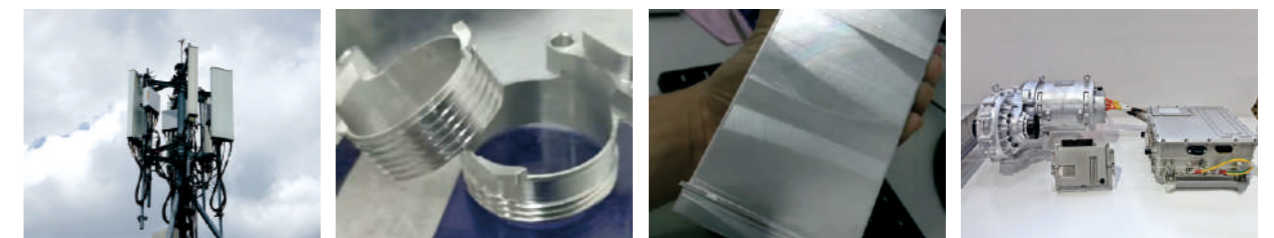
重预压高精度直线滚柱线轨，增强机床承载性能，吸震性更强。
High-precision linear roller rails are heavily preloaded to enhance the load-bearing performance of the machine tool and have stronger shock absorption.



Application area

应用领域

广泛应用于5G、新能源、精密零配件、模具精加工行业。
It is widely used in 5G, new energy, mold processing industries.



Features of two-line and one-hard series of vertical machining centers

立式加工中心两线一硬系列特点

01.

Z轴采用中频淬火加磨削加工的硬轨技术，矩形导轨与贴塑板支撑结构，抗震性能好，滑动接触面积大、热变形对称，稳定性佳。

The Z-axis adopts the hard track technology of intermediate frequency quenching and grinding. The rectangular guide rail and the plastic plate support structure have good seismic performance, large sliding contact area, symmetrical thermal deformation, and good stability.

02.

三轴电机座/轴承座采用无垫片设计，人工刮研保证接触性，稳定性强，提高了机床抗震性能。

The three-axis motor seat/bearing seat adopts no gasket design, manual scraping to ensure contact, strong stability, and improve the seismic performance of the machine tool.

03.

整机铸铁采用高合成铸铁（HT300材料），所有主体经3D动态有限元分析，确保机床具有最佳性能设计，增强切削刚性和稳定性。加重型底座，有效地确保了机床运行时抗震能力。

The cast iron of the whole machine adopts high synthetic cast iron (HT300 material), and all the main bodies are analyzed by 3D dynamic finite element to ensure that the machine has the best performance design and enhance cutting rigidity and stability. The heavy-duty base effectively ensures the anti-vibration capability of the machine tool during operation.

项目 Item		V856Z	V1160Z	V1370Z	V1580Z
加工范围 Processing range	X轴行程 X axis stroke	mm 820	1100	1300	1500
	Y轴行程 y axis stroke	mm 550	650	700	800
	Z轴行程 z axis stroke	mm 600	600	700	700
工作台 Workbench	主轴端面至工作台距离 Distance from spindle end to workbench	mm 130-730	130-730	120-820	150-850
	工作台面积 Workbench area	mm 1000×550	1200×600	1400×700	1700×800
	最大承重 Max weight capacity	kg 600	800	700	1200
	T型槽（宽度×槽数×间距） T-slot (width*slot number*spacing)	mm 18×5×100	18×5×100	18×5×125	18×5×140
主轴 Spindle	主轴驱动方式 Spindle drive mode	直驱 Direct drive	直驱 Direct drive	皮带 Belt	皮带 Belt
	主轴转速 main axis speed	rpm 12000	12000	8000	8000
	主轴功率（连续/过载） Spindle power (continuous/overload)	kW 7.5/11	11/15	11/15	15/18.5
	主轴扭矩（连续/过载） Spindle torque (continuous/overload)	N.m 36/96	53/118	70/118	143/236
	主轴锥孔 Spindle taper	BT40	BT40	BT40	BT50
	拉钉角度 Pull nail angle	° 45°	45°	45°	45°
进给驱动 Feed drive	X、Y、Z轴快移速度 X, Y, Z axis rapid traverse speed	m/min 36/36/24	36/36/24	36/36/24	24/24/16
	X、Y、Z轴伺服电机功率 X, Y, Z axis servo motor power	kW 2/2/3	3/3/3	3/3/3	4.5/4.5/4.5
	X、Y、Z轴伺服电机转速 X, Y, Z axis servo motor speed	rpm 3000/3000/3000	3000/3000/3000	3000/3000/3000	3000/3000/3000
	X、Y、Z轴丝杠直径 X, Y, Z axis screw diameter	mm 40/40/40	40/40/40	40/40/40	50/50/50
刀库 Tool library	线性导轨（线轨宽/滑块数量） Linear guide rail (line rail width/number of sliders)	mm XY:45×2 Z:硬轨	X:45×3 Y:45×2 Z:硬轨	X:45×3 Y:45×2 Z:硬轨	X:45×3 Y:45×2(4轨) Z:硬轨
	刀库容量 Tool library capacity	把 24	24	24	24
	刀库形式 Tool library form	刀臂式刀库 Arm type tool magazine	刀臂式刀库 Arm type tool magazine	刀臂式刀库 Arm type tool magazine	刀臂式刀库 Arm type tool magazine
	刀具最大直径/邻空刀 Maximum tool diameter / adjacent empty tool	mm Φ78/(Φ120/150)	Φ78/(Φ120/150)	Φ78/(Φ120/150)	Φ120/Φ250
	最大刀具长度 Maximum tool length	mm 300	300	300	400
	刀具最大重量 Maximum tool weight	kg/把 8	8	8	16
	换刀时间 Tool change time	s 2.5	2.5	2.5	3.6
定位精度 positioning accuracy	X/Y/Z轴	mm 0.01	0.01	0.012	0.015
重复定位精度 Repeated positioning accuracy	X/Y/Z轴	mm 0.005	0.005	0.008	0.008
数控系统 CNC system		三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80	三菱M80 Mitsubishi M80
气源压力 Air pressure	MPa	0.6-0.8	0.6-1	0.6-1	0.6-1
机床电源 Machine power	V/Hz	380V/50Hz	380V/50Hz	380V/50Hz	380V/50Hz
机床重量 Machine weight	KG	约5600	约6800	约7800	约11300
占地面积 Floor space	mm	2600×2720	3150×2910	3420×3010	4000×3240

选配 Optional

1.系统 System	<input type="checkbox"/> 三菱M80A Mitsubishi M80A <input type="checkbox"/> 西门子828D Siemens 828D <input type="checkbox"/> Fanuc Oi MF Fanuc Oi MF
2.接触式对刀仪 Contact tool setter	<input type="checkbox"/> 雷尼绍TS27R Renishaw TS27R
3.探头 Probe	<input type="checkbox"/> 雷尼绍OMP40-2 Renishaw OMP40-2
4.立柱加高 Heightened probe column	<input type="checkbox"/> 加高200mm 200mm heightened
5.排屑机 Chip removal machine	<input type="checkbox"/> 铝合金用排屑机 Chip removal machine for aluminum alloy <input type="checkbox"/> 铁屑用排屑机 Chip removal machine for iron filings <input type="checkbox"/> 铸铁屑用排屑机 Chip removal machine for cast iron shavings

Perfect match of rigidity and stability

刚性与稳定性完美匹配

采用配重技术，减轻Z轴电机负载，增强Z轴加工时的稳定性。

The counterweight technology is adopted to reduce the load of the Z-axis motor and enhance the stability of the Z-axis machining.

主轴头内部肋骨强化结构，并与立柱长度比率最佳化，更好地为主轴提供刚性和稳定性支持。

The internal rib reinforcement structure of the main axis head is optimized with the ratio of the column length to better provide rigidity and stability support for the main axis.

人字形立柱，加重型底座，整机稳定性更强。

Herringbone column and heavier base make the whole machine more stable

Z轴硬轨采用中频淬火，硬度HRC45°，耐磨性强，采用研磨和人工刮研技术，有效地保证了接触度和直线度。

The Z-axis hard rail adopts intermediate frequency quenching, the hardness is HRC45°, and the wear resistance is strong. The grinding and manual scraping technology are used to effectively ensure the contact and straightness.

三轴电机座、轴承座采用高技艺铲花保证接触面的平稳性，消除伺服电机因安装工艺产生的振动。

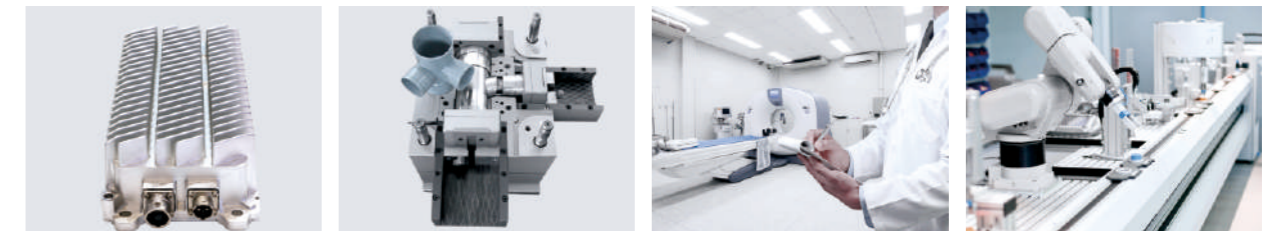
The three-axis motor seat and bearing seat adopt high-tech shovel to ensure the stability of the contact surface and eliminate the vibration of the servo motor due to the installation process.

Application area

应用领域

广泛应用于模具、零配件、医疗、机械自动化及夹具加工，适用于重切削。

It is widely used for molds/components processing, gripper and fixture processing in medical industry and mechanical automation applications. It is suitable for heavy cutting.



03

客户服务

Chapter of Service

售后服务、全球服务网点

After-Sale Service、Global Service Net

