### 中国华南研发制造基地

### 广东拓斯达科技股份有限公司

地址: 广东省东莞市大岭山镇大塘朗创新路2号

电话: 86-769-8305 0999 传真: 86-769-8584 5562 邮箱: marketing@topstarltd.com South China R&D and Manufacturing Base

### Guangdong Topstar Technology Co., Ltd.

ADD: No.2 Chuangxin Road, Datanglang, Dalingshan Town, Dongguan City,

Guangdong Province.
TEL: 0086 769 8305 0999
FAX: 0086 769 8584 5562
E-mail:marketing@topstarltd.com

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### 中国华东研发制造基地

### 江苏拓斯达机器人有限公司

地址: 江苏省苏州市吴中经济开发区郭巷街道淞葭路

1999号

电话: 0512-8686 4305 手机: 185 0156 0757 East China R&D and Manufacturing Base

### Jiangsu Topstar Robot Co., Ltd.

ADD: No.1999 Songjia Road, Guoxiang Street, Wuzhong Economic Development

Zone, Suzhou City, Jiangsu Province

TEL: 0512-8686 4305 MOB: 185 0156 0757

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### 苏州拓斯达智能装备有限公司

地址: 江苏省苏州市吴中经济开发区郭巷街道淞葭路

1999号C栋1楼

电话: 0512-5288 9310 手机: 185 0156 0757 Suzhou Topstar Intelligent Equipment Co., Ltd.

ADD: 1F, Building C, No.1999 Songjia Road, Guoxiang Street, Wuzhong Economic

Development Zone, Suzhou City, Jiangsu Province

TEL: 0512-5288 9310 MOB: 185 0156 0757

### 宁波拓晨机器人科技有限公司

地址: 浙江省余姚市风山街道舜汇东路93弄

电话: 86-574-86105571 传真: 86-574-86105571 手机: 13777232779 Ningbo Topstar Robot Technology Co., Ltd.

ADD: Lane 93, Shunhui East Road, Fengshan Street, Yuyao City, Zhejiang Province

TEL: 86–574–8610 5571 FAX: 86–574–8610 5571 MOB: 137 7723 2779

### 拓斯达(越南)科技有限公司

地址: 北宁省北宁市武宁坊京阳王路48号

电话: 0084-346-860 156 手机: 186 0209 6307

### TOPSTAR (VIETNAM) TECHNOLOGY CO.,LTD

ADD: No. 48 Kinh Duong Vuong Street, Vu Ninh Ward, Bac Ninh City,

Bac Ninh Province
TEL: 0084-346-860 156
MOB: 186 0209 6307

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全国统一客服热线 Domestic Service Hotline 400-096-8005 Http://www.topstarltd.com

### 以核心技术驱动的智能硬件平台 Intelligent hardware platform driven by core technology



**Topstar Technology** 



おエ业制造更美好 Making Industrial Manufacturing Better

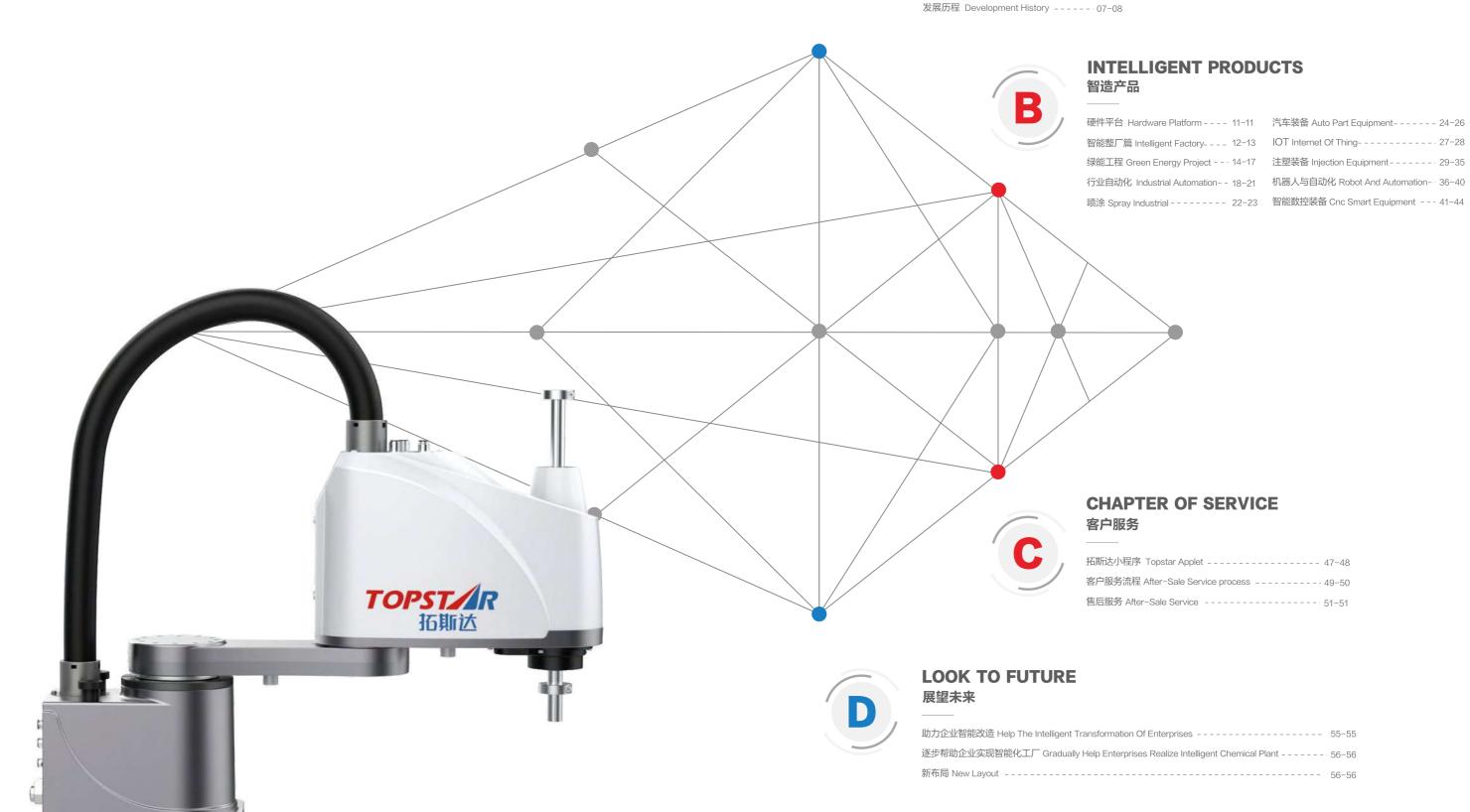
# **CONTENTS**

目录



### **TOPSTAR** 拓斯达

公司简介 Company Profile ------03-04 企业文化 Company Culture -----05-05 资质评定 Qualification Evaluation----06-06



TOPSTA	
	拓斯达 TOPSTAR

公司简介、企业文化、资质评定、发展历程

Company Profile、Company Culture、Qualification Evaluation、Development History

GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 04



# **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)成立于2007年,总部位于广东省东莞市大岭山镇,注册资本4.25亿元。

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、注塑机、五轴联动数控机床(CNC)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。

公司积极布局全球市场,截至2023年6月30日,拥有国内办事处约30家,已成立拓斯达(越南)科技有限公司,并加大力度发展墨西哥业务,提升海外市场竞争力。目前公司触达客户超过20万家,已累计服务客户超过15000家。

Guangdong Topstar Technology Co., Ltd. (abbreviation: Topstar, stock code: 300607) was established in 2007 and is headquartered in Dalingshan Town, Dongguan City, Guangdong Province with a registered capital of 425 million yuan.

Topstar adheres to the corporate mission of "making industrial manufacturing better", and creates an intelligent hardware platform driven by core technologies through intelligent equipment centered on industrial robots, injection molding machines, and five-axis CNC machines, as well as three core technologies of control, servo, and vision, to provide manufacturing enterprises with an overall smart factory solution.

Topstar is actively laying out the global market, as of 30 June 2023, it has about 30 domestic offices and has set up Topstar (Vietnam) Technology Co., Ltd. and intensified its efforts to develop the business in Mexico to enhance the competitiveness of the overseas market. So far, Topstar has reached more than 200,000 customers and has served more than 15,000 customers.

注册资本 Registered Capital

授权专利 Patents 25亿元

**706** <sup>¬</sup>

30家

办事处近

又 **72** 项

服务客户超 Serving Customers 15000 家

研发技术人员近 1000 A R&D Technicians

公司是国家高新技术企业、国家绿色工厂、广东省机器人骨干企业、广东省服务型制造示范企业、广东省首批智能机器人产业链"链主"企业、广东省智能制造生态合作伙伴、东莞市"倍增计划"试点企业、东莞数字化转型服务商企业,建有广东省企业重点实验室、广东省工程技术研究中心、广东省企业技术中心、广东省博士工作站、东莞市技师工作站等人才及科研平台、东莞市双创人才示范点。公司荣获"东莞市政府质量奖""东莞市先进集体""东莞市友善企业""2022年度东莞市非公有制工业企业(集团)贡献奖"等奖项,并入选"2021中国智能制造50强""2021广东企业500强""2021工业机器人TOP50""2022年广东省制造业企业500强"等榜单。

Topstar is a National High-Tech Enterprise, National Green Factory, Guangdong Provincial Robot Key Enterprise, Service-oriented manufacturing demonstration enterprise in Guangdong, The First Batch of Intelligent Robotics Industry Chain "Chain Master" Enterprises in Guangdong Province, Intelligent Manufacturing Ecological Partner of Guangdong, Dongguan "Doubling Plan" Pilot Enterprise, Dongguan Digital Transformation Service Provider Enterprise, and has built Guangdong Enterprise Key Laboratory, Guangdong Engineering Technology Research Center, Guangdong Enterprise Technology Center, Guangdong Doctoral Workstation, Dongguan Technician Workstation and other talent and scientific research platforms, Demonstration Site for innovation and entrepreneurship talents in Dongguan. The company won the "Dongguan Municipal Government Quality Award", "Dongguan Advanced Collective", "Dongguan Friendly Enterprise", "2022 Dongguan Non-public Industrial Enterprise (Group) Contribution Award" and other awards, and was selected as "2021 China's Top 50 Intelligent Manufacturing Enterprises" and "2021 Guangdong Top 500 Enterprises", "2021 Industrial robot TOP50", "Top 500 Manufacturing Enterprises in Guangdong in 2022", etc.

05 GUANGDONG TOPSTAR TECHNOLOGY CO..LTD. TOPSTAR TOPSTAR GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. 06

# **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

以核心技术驱动的智能硬件平台 Intelligent hardware platform driven by core technology

### 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

CoreValues

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.

截至2023年6月30日,公司拥有已获得授权专利706项,其中发明专利116项(另有处于实审阶段的发明专利214项),各类软件著作权72项。公司多 项产品荣获广东省名牌产品、广东省名优高新技术产品,并通过欧洲CE认证。

As of June 30, 2023, Topstar has 706 authorized patents, including 116 invention patents (214 invention patents in the substantive examination stage), and 72 various software copyrights. Lots of our products have won the Guangdong-Famous-Brand-Products, Guangdong-Provincial-Famous-High-tech-Products, and passed the European CE certification.















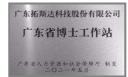


**西高工M器人** 2020年度 新行业开拓创新奖



















THUX SERVICES

高端制造产业上市公司

年度品牌影响力企业奖

07 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. 08

# **DEVELOPMENT HISTORY**

# 发展历程

### 开拓市场 创新研发辅机

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。

### Expanded the market and conducted innovative R&D on auxiliary equipment

Developed new type of energy-saving three-in-one equipment.

Developed 160 °C direct cooling water circulating temperature controller, increasing cooling efficiency.

### 50万注册资金起步

拓斯达以50万元资金注册成立;

提出"打造一流品质"的企业和产品定位。

### Company established with a registered capital of RMB 500,000

Topstar was incorporated with a registered capital of RMB 500,000.

"Creating first-class quality" enterprise and product positioning proposed.

### 提高产品自产率 客户达1000家

成立拓斯达商学院;

市场成交客户量突破1000家;

成立钣金工厂,提高自产率,产能再次提升。

Increased independent production capacity; more than 1,000 customers

Established Topstar Business School. Customer base exceeds 1,000 customers. Established sheet metal factory, enhancing independent production capacity and rate.

### 注塑自动化全套解决方案运营商

自主研发的三轴、五轴伺服机械手上市, 获得广泛好评;

确立整体注塑自动化解决方案的发展方向, 提出主动服务理念;

成功举办"华南塑料工业高端论坛"。

Became injection molding automation total olution operator

Launched independently developed three-axis and five-axis servo manipulators in the market, which gained wide market recognition.

Established the development direction of the overall injection molding automation solution, and launched active service concept. Successfully held South China Plastics Industry

### 2013

### 引入战略投资 多领域拓展自动化应用场景

投资3亿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应用场景; 进行股 份制改革,核心员工持股。

### Introduced strategic investments and developed multi-field automation

Invested RMB 300 million to expand the automatic manufacturing base s production capacity; the project was included in the key construction project of Dongguan City. Established the Automation Project department, set up automation in grinding, stamping, die-casting, and other fields, conducted joint-stock system reform, and initiated share ownership by core employees

### 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;

设立无锡办事处,辐射华东,开启全国市场 布局:

与清华大学合作,引入先进企业管理理念。

### 2010

### Developed manipulator products and expanded market across China

Developed manipulator products and become a comprehensive automation system industry chain

Established Wuxi office to cover markets in East China and launched the national market layout. Introduced advanced enterprise management concept in partnership with Tsinghua University.

### 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:

与华南理工大学签署产学研合作协议。

### Certified as a high-tech enterprise and established global market layout

Awarded the National High-tech Enterprise title. Established global market layout with products sold in Southeast Asia, Europe, South America, and other regions.

Signed an industry-university-research cooperation agreement with South China University of Technology.

### 挂牌新三板 响应"机器换人"政策

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。

### Listed in the new OTC market and took the lead in "machines replacing humans"

Listed on the new OTC market and realized

Took the lead in the "machines replacing humans" policy and proposed 1-year ROI on automation concept.

Established North China and Central China marketing centers and more than 20 new offices across China.

### 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; 形成工业机器人、自动化解决方案、整厂水电 气系统、配套设备等多领域智能制造体系。

### Acquired expertise in core technologies and conducted R&D on industrial robots

Mastered the core technology of the control system and formulated R&D plan for industrial robots

Established a multi-field intelligent manufacturing system including industrial robot, automation solution, whole plant water and electrical system, and ancillary equipment.

### 2016

### 整合上下游资源 打造智能生态圈

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 厂自动化四位一体的智能制造生态圈理念; 整合上下游资源,与ABB签订战略合作协议。 深入展开合作。

### Integrated upstream and downstream

resources and created intelligent ecosystem Launched the independently developed six-axis industrial robots in the market.

Proposed the concept of creating a four-in-one intelligent manufacturing ecosystem of software R&D, robot design, integration solution, and whole-plant automation.

Integrated unstream and downstream resources and signed strategic cooperation agreement with ABB to carry out in-depth cooperation

### 登陆创业板 实施员工持股计划

创业板上市,股票代码300607,实施员工持股计 划惠及200余人;

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 诰整体解决方案:

导入SAP信息化管理及任职资格体系,提升管理团

Listed on GEM and expanded employee stock ownership Listed on GEM with stock code 300607, and expanded stock ownership to more than 200 employees

Built a comprehensive intelligent manufacturing service built a complete inside illegiest manipuscularly set with industrial robots at the core, and launched total intelligent manufacturing solutions by organizationally restructuring four departments and two academies.

Introduced SAP information management and qualification system to improve management and operational efficiency.

2018

山湖。

### 新园区 新使命

发布企业全新使命、愿景、价值观, 确定新组织气质;

迁入新园区,举办首届全球开放日; 优化产业布局, 收购野田智能、 筹建苏州生产研发基地、置地松

### 强战略 定核心

提出"以核心技术驱动的智能硬件平台"战略定位;

方案研发及产业化项目;

布局五轴高端数控机床赛道,控股埃弗米。

### 拿结果 强组织 做价值

驼驮科技成立,布局产业互联网;

company mission

公开增发募集资金6.5亿元用于苏州生产基地 建设:

Relocated to the new park and released new

Released the company's new mission, vision, and values and defined the new organizational outlook.

Relocated to the new park and held the first Global Open

After optimizing the industrial layout, the company acquired Noda, prepared for the construction of Suzhou Production and R&D Base, and purchased land in Songshan Lake area.

拓星辰系列上市,拓星河1号进入Beta阶段。

2019

### Targeted improved results, strengthened the organization, and realized value generation

Established TUOTUO Technology to layout the industrial

Raised RMB 650 million through public secondary offering. Launched TXC series in the market and TXH No.1 entered the beta stage.

### 2020

### 新产品 新赛道

组建自有研发团队,开拓注塑机业务线,实现注 塑业务整体解决方案全产品闭环;

开拓CNC数控机床业务线;

董事长吴丰礼参加习近平总书记主持召开的企业 家座谈会;

服务客户数突破10000家。

to injection molding businesses.

### Launched new products and started on a new track Established independent R&D team, launched the injection molding machine business line and provided total solutions.

Exploit the CNC machine tool business line. Chairman Wu Fengli attended the entrepreneurs symposium presided over by President Xi Jinping Customer base exceeds 10.000 customers.

# 2021

确立以工业机器人、注塑机、CNC数控机床为三大 核心产品;

发行可转债募资6.7亿元用于建设智能制造整体解决

拓斯达智能设备总部基地 (大岭山连平)项目完成

### Strengthened strategies and initiated platformoriented business

Launched "integration robot" on the automation equipment integrated service platform. Established industrial robots, injection molding machines and CNC as the three core products.

Raised RMB 670 million by issuing convertible bonds to construct R&D facilities and to develop total intelligent manufacturing industrialization projects.

Completed and delisted Topstar intelligent equipment headquarter base project (Lianping, Dalingsh Layout the five-axis high-end CNC machine tool track, holding AFM company.

### 2022

### 扩产品 强建设

TMII机铰式液压伺服驱动注塑机、GMU-600五轴 联动加工中心、TRH002-400-150-A系列高速机 器人杂面市:

拓斯达智能设备总部大岭山连平基地二期顺利摘牌; 拓斯达松山湖研发总部基地喜封金顶;

拓斯达小程序上线;

智能设备总部基地一期主体结构喜迎封顶。

### Products expansion and strong construction

Toggle hydraulic servo-driven injection molding machine TM II, five-axis machining center GMU-600 and high-speed robot TRH002-400-150-A come onto the market together Topstar intelligent equipment headquarters in Dalingshan Lianping Base Phase II accomplished.

Topstar Songshan Lake R&D headquarters infrastructure construction base is finished.

Topstar mini program is on line. The main structure of the first phase of the intelligent equipment headquarters base was completed in delight.

H	
	智造产品
	INTELLIGENT PRODUCTS

硬件平台、智能整厂篇、绿能工程、

行业自动化、喷涂、汽车装备、IOT、注塑装备、机器人与自动化

Hardware platform、Intelligent factory、Green Energy Project、Industrial automation、Spray Industrial、Auto part equipment、Internet of thing、Injection equipment、Robot and automation

11 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR TOPSTAR TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 1

# HARDWARE PLATFORM

# 硬件平台

### 技术平台体系,保障多产品线核心竞争力

Technology platform system, Ensuring the core competitiveness of multiple product lines





# INTELLIGENT INJECTION MOLDING THROUGHOUT THE FACTORY

智能整厂篇



实现工厂规划/注塑自动化产线/数据管理 Implement Plant Planning/Injection molding automation production line/Data management

# 拓斯达智能整厂

Topstar Intelligent Whole plant:

智能整厂包括一站式模块规划与施工: 注塑机+辅机设备、前端自动化中央供料、后端机器人自动化模块、水电气能源模块、数据管理MES模块,以实现 智能注塑整厂模块化规划,让投入制造变得更简单;实现工厂规划+注塑自动化产线+数据管理一体化设计、生产、实施、维护的智能制造综合服务平台。

The intelligent whole plant includes one-stop module planning and construction: injection molding machine + auxiliary equipment, front-end automation central feed, back-end robot automation module, water and electric energy module, data management MES module. Intelligent injection molding realizes the modular planning of the whole plant, making it easier to put into manufacturing. Realize the factory planning + injection molding automation production line + data management integration design, production, implementation, maintenance of intelligent manufacturing integrated service platform.

GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. 14

### 智能整厂运行原理图

Intelligent plant operation schematic diagram





犹如"监管者"角色,实时监控整座工厂的运行状态,一旦发现哪一个环节设备出现故障,就能自动报警并加速处理。

### Intelligent production

The role of "supervisor", for example, monitors the operation status of the whole factory in real time, and once it finds out which link equipment fails, it can automatically alarm and accelerate the processing.

### **04** 信息化车间

采用网络对车间进行管理,进行高效的排产和 人员排班,提高设备利用率,减少库存。

### Informationized workshop

Manage the workshop with network, arrange production and personnel effciently, improve equipment utilization rate and reduce inventory.

# **03** 自动化产线

在生产和装配的过程中,自动进行生产、质量、能耗等 数据采集,并显示实时的生产状态。生产线能够实现柔 性自动化,支持相似产品的混线生产,灵活调整工艺。

### Automatic production line

In the process of production and assembly, data collection of production, a quality, energy consumption and other data will be automatically carried out, and real-time production status will be displayed. The production line can realize exible automation, support the mixed line production of similar products, and adjust the process fexibly.

# **02** 智能设备

主要包含生产设备、检测设备和物流设备。机器人通过视觉、 力觉传感器,准确识别工件,自主进行装配。智能物流设备则 包括:自动化立体仓库、AGV输送车、悬挂式输送链等。

### Smart devices

It mainly includes production equipment, testing equipment and logistics equipment. The robot accurately recognizes the workpiece through vision and force sensors, and assembles autonomously. Intelligent logistics equipment includes: automated warehouses, AGV conveyors, suspended conveyor chains, etc.

# **01** 智能环境

采用洁净的生产环境、能源模块,进行高效地排产与人员分配,提 高产品良率,减少损耗。

### Intelligent environment

Adopt Clean Production Environment, energy module, effcient production scheduling and personnel distribution, improve product yield reduce consumption.

# **GREEN ENERGY PROJECT**

# 绿能工程

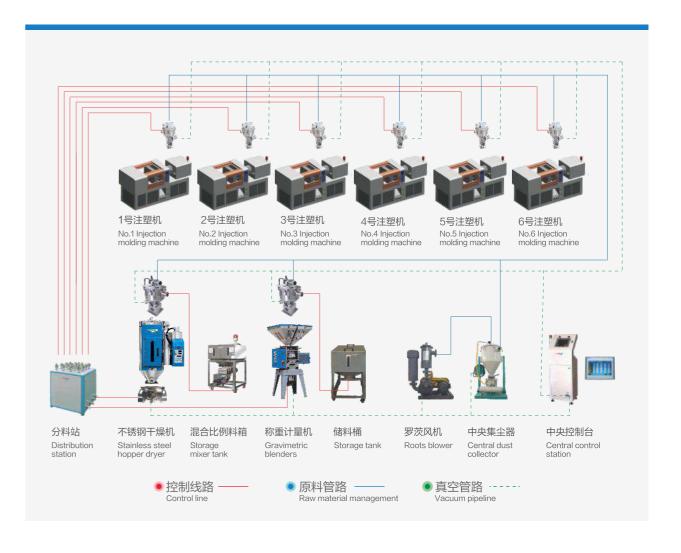
### 中央供料系统

Material Centralized Feeding System





提高生产效率 30%以上 Improving production efficiency above 30%. 保持工厂环境整洁, 提升公司整体形象 Keep the factory environment clean and tidy, enhance the overall image of the company.



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### 绿能无人车间示意图

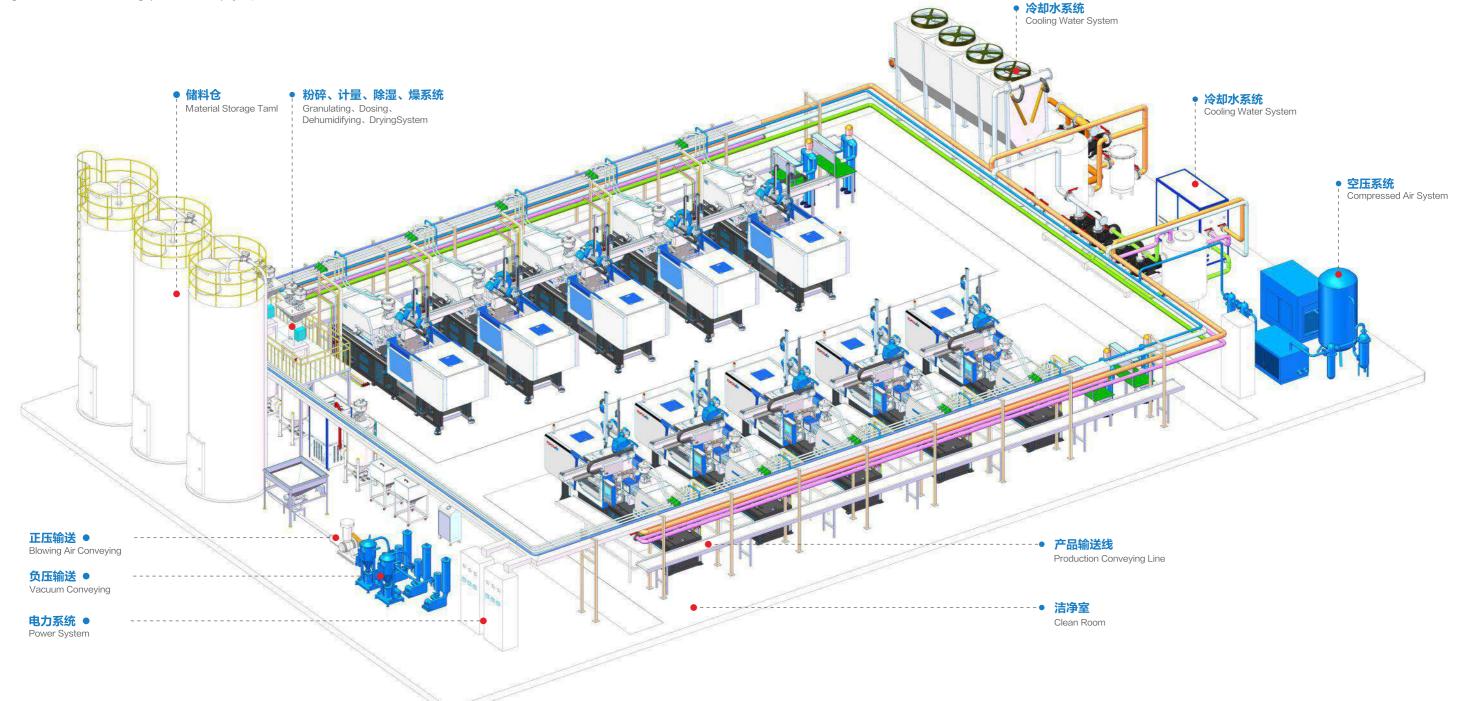
Fully-Automatic Workshop Diagram with Green-energy System

### 台主营业务 Major Business

- 洁净室工程、医疗手术室、 数据中心等净化工程(10级—10万级); Clean room engineering, medical operating room, data center and other purification projects (10 − 100,000 levels);
- 暖通空调、水电安装、给排水等工程; HVAC, hydropower installation, water supply and drainage projects;
- 工厂设备信息监控、FMCS厂务监控系统、MES、能源管理系统; Plant equipment information monitoring, FMCS plant monitoring system, MES, energy management system;
- 设备动力配电、照明配电等低压配电工程;

Equipment power distribution, lighting distribution and other low-voltage power distribution projects;

- 压缩空气、特气、真空、工艺冷却水、纯水等制程工艺管路工程;
   Compressed air, special gas, vacuum, process cooling water, pure water and other process pipeline engineering;
- 环氧树脂自流平、防静电PVC、铸铝/全钢高架等地板工程; Epoxy resin self-leveling, anti-static PVC, cast aluminum / all-steel high frame and other flooring engineering;
- 建筑装修、钢结构、一般土建工程;
   Building decoration, steel structure, general civil engineering;
- 废水、废气处理、通风排气等环保工程。
   Waste water, waste gas treatment, ventilation, exhaust and other environmental protection projects.



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### 洁净室装修 Clean room engineering







医疗万级洁净室 Medical ten thousand clean room.



十级洁净室 Level 10 clean room.

### 工艺机电 Process electromechanical



注塑整厂机电 injection molding whole plant electromechanical.



空压站 Air pressure station.

暖通空调 HVAC







水处理&环保 Water treatment&Environmental friendly



纯水系统 Pure water system



废气处理系统 waste gas treatment system

建筑装修 Building decoration





# **INDUSTRIAL AUTOMATION**

# 行业自动化

### 智能物流

### Intelligent logistics

拓斯达致力于为客户提供全套先进的自动化物流系统,拥有咨询规划与工程实施相结合、信息技术与现代管理技术相结合、自动化专有技术与行业特点相结合的强大系统集成能力,解决客户使用立体仓库的疑难问题,同时将立体仓库的性能发挥到极致,创造最大的效益。

Topstar is committed to providing customers with a full set of advanced automated logistics systems, with consulting planning and engineering implementation, information technology and modern management technology, automation and proprietary technology and industry characteristics combined with a powerful system integration capabilities. Solve the difficult problems of customers using the three-dimensional warehouse, while the three-dimensional warehouse performance to the extreme, to create the greatest benefit.

### 3C智能物流系统

3C Intelligent Logistics System



实现原料和成品入库、出库、分拣等功能,根据ERP、WES的单据需求实施智能化物料出入库分拣以及实时配送;包含信息管理、任务调度、设备监控等基本功能。

Realize the functions of warehousing, outbound and sorting of raw materials and finished products, and implement intelligent material warehousing, sorting and real–time distribution according to the document requirements of ERP and WES.Includes information management, task scheduling, equipment monitoring and other basic functions.



### 精密检测设备智能物流系统

Intelligent logistics system for precision detection equipment



实现精密视觉检测设备零配件储存、分拣出库等功能,配置两个巷道自动立体 仓库。

It realizes the functions of storage and sorting of spare parts of precision visual inspection equipment, and it is equipped with two roadway automatic three-dimensional warehouses.



### 新能源整厂物流解决方案

New energy whole plant logistics solution



锂电池后处理系统配置堆垛机、输送线、提升机等设备实现电池从化成分容到 常温静置过程的自动流转。

the lithium battery post-processing system is equipped with stacker, conveyor line, elevator and other equipment to realize the automatic flow of the battery from the capacity of chemical components to the process of standing at room temperature.





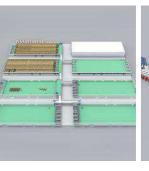
### 电子元器件整厂物流解决方案

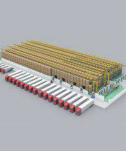
Electronic components factory logistics solution



解决了企业各个建筑物之间的货物流转问题,不同功能区域均可实现物料的 互通互联,包含原材料立库与生产车间的货物配送,成品库与生产车间的货物流通。

it solves the problem of goods flow between each building of the enterprise. Different functional areas can realize the interconnection of materials, including raw material warehouse and goods distribution in the production workshop, finished products warehouse and goods circulation in the production workshop.





19 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 2

# 3C行业

3C industry

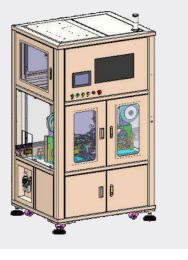
拓斯达是国内首个提出做"通用型""开放型""可升级""可复制"的自动化设计理念的高端装备制造企业,为客户提供多关节、平面机器人/非标机械手应用、自动化解决方案。

Topstar is the first domestic proposed to do "universal" "open" "scalable" "replicable" automation design concept of high-end equipment manufacturing enterprises, to provide customers with multi-joint, flat robot / non-standard robot applications, automation solutions.



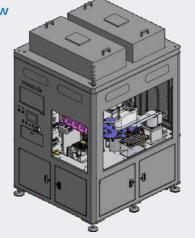
# 自动贴手机导电铜箔设备

Automatically attach mobile phone conductive copper foil equipment



### BC+Window 组装设备

BC+Window assembly equipment



# 新能源行业

New energy industry



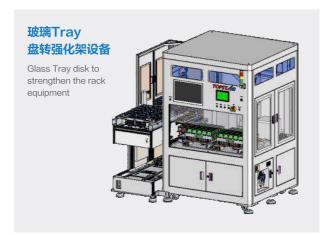
### 锂电池电芯 本体贴胶设备

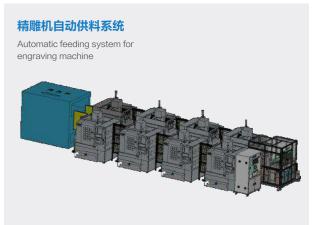
Lithium battery cell body glue applicator

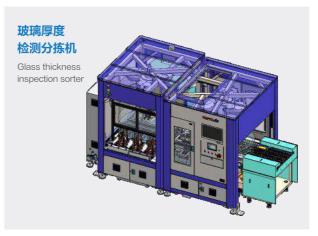


# 光电行业

Photoelectric industry









# 包装行业

Photoelectric industry









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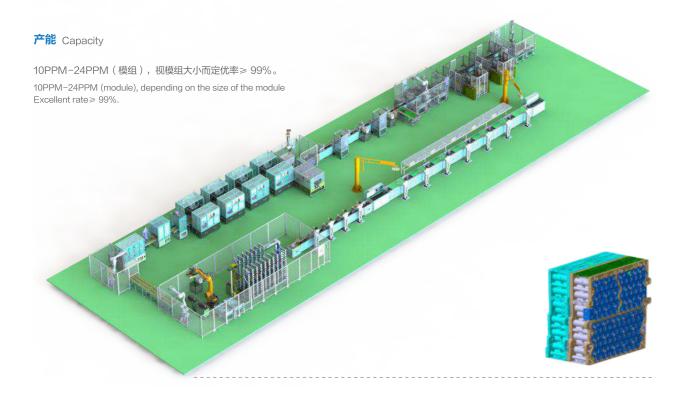
### 圆柱电池模组组装&PACK总装概览

Cylindrical battery module assembly & PACK assembly overview

### 线体描述 Production Line description

可实现18650、21700、26650等各种圆柱电芯的兼容性生产,针对18650的特性进行全方位设计,实现单工位、单工站、可分离、可快速实现整线的工序增减,通过夹具换型,一键电控改变抓手间距的方式实现多种电芯间的切换,可实现一线多用,一条线可满足客户协议范围内几乎所有电芯的生产兼容。

It can realize the compatibility production of various cylindrical batteries such as 18650, 21700, 26650, and comprehensively design for the characteristics of 18650, realize single-station, single-station, separable, and can quickly increase or decrease the process of the whole line. Through the change of the fixture, the one-button electronic control changes the gripping distance to realize the switching between various batteries, which can realize multi-purpose one-line, one line can meet the production compatibility of almost all the batteries in the customer agreement range.





# **SPRAY INDUSTRIAL**

# 喷涂

### 汽车饰件涂装线

Automotive trim coating line

### 滑撬输送喷涂线

Skid conveyor spraying line





### 特点 Features:

- 1. 滑撬线能耗低,输送平稳,定位准确,分段控制,工作效率高, 占地面积少柔性化程度高;
- 2. 滑撬线适合产品: 汽车保险杠、汽车尾翼等大件产品。
- 1. The skid line has low energy consumption, stable conveying, accurate positioning, segmented control, high work efficiency, and small footprint, high degree of flexibility;
- 2. The skid line is suitable for products: car bumpers, car tails and other large products.

### 积放输送喷涂线

Accumulation conveyor spraying line





### 特点 Features:

- 1. 积放线体节约空间和能源,集成控制方便,操作简单,实现组合式柔式生产,满足少量多样的需求;
- 2. 整个系统包括前处理, 喷涂, 流平, 烘烤等流程;
- 3. 适合产品: 汽车门把手,后视镜,装饰条等大件产品。
- 1. The product line body saves space and energy, has convenient integrated control, simple operation, and realizes combined flexible production to meet a small number of diverse needs;
- 2. The whole system includes pre-treatment, spraying, leveling, baking and other processes:
- 3. Suitable products: car door handles, rear-view mirrors, decorative strips and other large products.

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### 地轨线

Spindle ground line



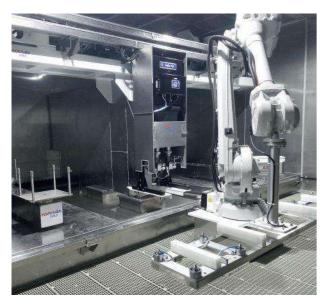


- 1. 通用型强,适合各种异形工件,使用率高,可动态同步跟踪输送带, 1. Strong general purpose, suitable for various special-shaped 可与机器人配合生产线喷涂;
- 2. 适合批量连续生产,喷涂均匀,良品率高;
- 3. 适用于3C (手机, 电脑, 家电)等。

- work-pieces, high utilization rate, dynamic synchronous tracking of conveyor belts, and spray coating with robots on the production line;
- 2. Suitable for batch continuous production, uniform spraying, high yield;
- 3. Suitable for 3C (mobile phones, computers, home appliances), etc.

### 喷涂机器人系统集成

Spraying robot system integration





### 特点 Features:

- 1. 使用ABB/安川/发那科/川崎等喷涂机器人自动喷涂;
- 2. 可实现油漆自动配比和自动换色、集中供料,精准计量控制系统;
- 3. 机器人配合转台实现多种产品喷涂。

- 1. Use ABB/Yaskawa/Fanuc/Kawasaki and other spray robots for automatic spraying;
- 2. It can realize paint automatic proportioning and automatic color change, centralized feeding, precise measurement control system;
- 3. The robot cooperates with the turntable to achieve a variety of product spraying.

# **AUTO PART EQUIPMENT**

# 汽车装备

### 方案介绍

Solution Introduction

### 汽车零部件加工设备和方案全方位服务商(设备解决工艺范围)

Full-service supplier for auto part processing equipments and solutions (Processing techniques including )



### 服务产品系列

Solutions for below auto parts



汽车门板、仪表盘、中央通道、手套箱、AB柱、顶棚、尾门、保险杠、车灯、燃油箱等内外饰件以及功能部件。 Door panel dashboard central console glove box pillars headliner tailgate bumpers lamps fuel tank etc. interiors, exteriors and functional parts. 25 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. 2

### 门板解决工艺 Door Panel Solution



注塑取件自动化  $\rightarrow$  焊接  $\rightarrow$  包覆  $\rightarrow$  装卡扣  $\rightarrow$  打螺丝 Injection Molding Automation  $\rightarrow$  Welding  $\rightarrow$  Cladding  $\rightarrow$  Loading Buckles  $\rightarrow$  Screwing

保险杠解决工艺 Bumper Solution



注塑  $\to$  喷涂  $\to$  焊接  $\to$  冲孔  $\to$  装配 Injection Molding Automation  $\to$  Spraying  $\to$  Welding  $\to$  Punching  $\to$  Assembly

### 油箱解决工艺 Fuel Tank Solution



吹塑 →飞边定型 → 打孔→焊接(热板) → 装配→ 检验 Blow Molding Automation →Deflashing &Cooling → Cutting→ Welding (Hot Plate Welding) → Assembly → Inspection

### 仪表板解决工艺 Dashboard Solution



注塑取件自动化 → 火焰处理 → 震动焊 (红外) → 超声焊 → 装配 Injection Molding Automation → Flame Treatment → Vibration Welding (infrared) → Ultrasonic Welding → Assembly

### 尾门解决工艺 Tailgate Solution



注塑取件  $\to$  喷涂  $\to$  焊接  $\to$  冲孔  $\to$  装配 Injection Molding Automation  $\to$  Spraying  $\to$  Welding  $\to$  Punching  $\to$  Assembly

### 顶棚解决工艺 Headliner Solution



自动上料  $\to$  湿法  $\to$  干法  $\to$  复合切割  $\to$  压着翻边  $\to$  检测  $\to$  安装 Automatic Feeding  $\to$  Wet Method  $\to$  Dry Method  $\to$  Composite Cutting  $\to$  Pressing & Flanging  $\to$  Inspection  $\to$  Installation

### 应用案例

**Application Case** 

### 汽车门板焊接类 Door Panel Welder Series



一汽红旗HS5门板机器人柔性焊接机 FAW Hongqi HS5 door panel robot flexible welder



一汽奥迪C8/Q5门板焊接机 FAW Audi C8/Q5 door panel ultrasonic welder

### AB柱扶手焊接涂胶系列 Pillars & Handrail trims welder and gluing series



上汽大众Passat A/B柔性焊接机 Saic Volkswagen Passat Pillars Welder



东风本田思域扶手涂胶线 DF Honda CIVIC handrail gluing line

### 保险杠冲孔焊接以及其他系列 Bumper welders and miscellaneous series



一汽大众VW326前保险杠冲孔焊接机 FAW-VW VW326 front bumper punching and welding machine



路虎L550油箱焊接检验搬运柔性线 Lander Rover fuel tank robot welding, inspection & transfer line

27 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. 28

智能

安全

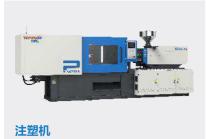
# **INTERNET OF THING**

IOT

### 拓斯达工业物联网平台

Topstar industrial Internet of Things platform











● 设备联网 Equipment networking

自动化设备

Automation equipment

● 开放式数据接口 Open data interface

数据可视化平台

Data visualization platform

厂务管理系统 Energy management system

- 异常报警及消息推送 Abnormal alarm and message push





适配多种标准工业协议,非标协议定制;支持断

网离线存储; 数据采集处理、控制指令下发, 按

It adapts to a variety of standard industrial protocols,

non-standard protocol customization, supports off-line network storage, data acquisition and

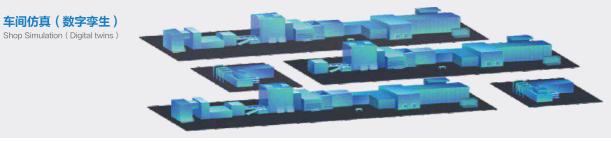
processing, control command issuing, flexible configuration on demand, and resource saving

边缘网关 Edge gateway

需灵活配置, 节省资源。





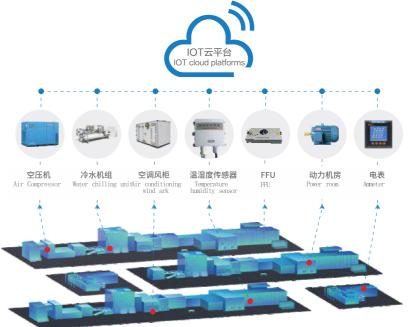


通过二维或三维表现技术来展示复杂的信息,实现对海量数据的立体体现。

Through the two-dimensional or three-dimensional representation technology to display complex information, to achieve the three-dimensional representation of

### 厂务管理系统

Energy management system



- 能源数据统计 Energy statistics
- 环境数据收集 Environmental data collection
- 设备联网管理 Device network management
- 数据分析与智能预警 Data analysis and intelligent early warning

设备联网管理 Device network management





# T-MES智能制造执行系统

T-MES intelligent manufacturing execution system

MES是一套面向车间执行层的生产管理系统,从生产计划的执行、生产过程监控、设备运行管理、产品质量及追溯、人员排班、看板展示等多维度对生 产现场进行集成管理。

U-T-MES is a production management system for Workshop Execution Layer, from the implementation of production planning, production process monitoring, equipment operation management, product quality and traceability, personnel scheduling, Kanban display and other multi-dimensional integrated management of the production site.



29 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 3

# **INJECTION EQUIPMENT**

# 注塑装备

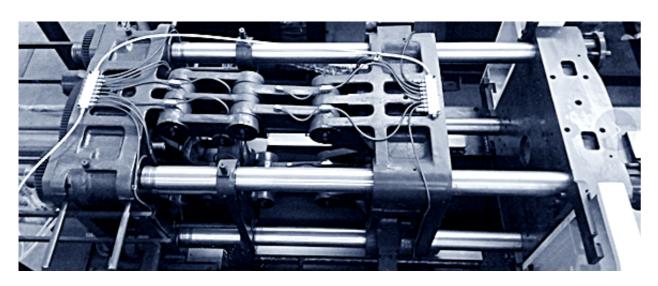


### TM II系列机铰式注塑机

TM II toggle hydraulic injection molding machine

TM II系列注塑机,采用经典的内翻五点式机铰结构,历经三十余年的技术沉淀,性能稳定可靠,整体性价比高。

The TM II series injection molding machine adopts the classic inverted five-point machine hinge structure. After more than 30 years of technical precipitation, the performance is stable and reliable, the overall cost-effectiveness is high.



- 采用计算机辅助优化设计,模板刚性好,使用寿命长,制品无飞边;
   Adopt computer-aided optimization design, the template has good rigidity, long service life and no flash on the product;
- 采用伺服电机,内啮齿轮泵,响应速度快,压力稳定,节能效果好;
   Adopt servo motor, internal gear pump, fast response speed, stable pressure and good energy saving effect;
- 采用双缸平衡射胶结构,数控背压装置,熔胶,射出,保压稳定。
   Adopt double-cylinder balanced injection structure, numerical control back pressure device, melt glue, injection, stable pressure holding.



### TE II系列注塑机

TE II Series Injection Molding Machine

TE || 系列电动注塑机,拓斯达IPD流程下研发的全新第二代电动注塑机。

TE || series electric injection molding machine, Topstar IPD process under the development of a new second generation of electric injection molding machine.

- 设计理念:安全·稳定·可靠 Design Concept: Safe· Stable· Reliable
- 制造理念: 用心打造,确保每一台交付到客户的电动机让消费者安心使用。
  Manufacturing Philosophy: Build with heart and soul to ensure that every motor delivered to the customer can be used by consumers with peace of mind.
- 机型特点: 灵活的组合,总有一款满足您的场景,顶出、调模、座移: 液、电可选。
  Model Features: Flexible combination, there is always one to meet your scenario, ejector, mold transfer, seat shift: liquid and electric optional.



### TH系列直压注塑机

TH Series Direct Press Type Injection Molding Machine for Civilian Containers

锁模与射台搭配标准化,两板直压式中心锁模结构,提供最大的开模行程,满足大规格、深腔制品生产需要,满足自动化取件需求。

The clamping and injection platform are standardized. Two plate direct pressure center mold lock structure, provide the maximum mold opening stroke, meet the production needs of large specification, deep cavity products, meet the demand of automation parts pick-out applications.

直压式中央锁模结构,锁模力均匀分布在模具投影面上,减少机板变形,减少产品飞边,制品壁厚均匀,模具寿命长。

Direcct pressing type central mould clamping structure, the mold clamping force evenly distributed on the mold projection surface, reduce the deformation of the machine plate, reduce the product flash, the product wall thickness is uniform, the mold life is long.

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### 机械手产品目录

Manipulator product catalog



横走式单轴伺服机械手

Single Axis Servo Driven Robots



牛头式机械手

Big Size Robot



横走式三轴/五轴伺服机械手

3/5 Axis AC Servo Driven Robots



EUW-80系机械手

EUW-80 Series Robo



旋转式机械手

Swing-Arm Robots



输送带系列

Belt Conveyor



MA2-TP 控制器

MA2-TP Controller



单轴机械手按键控制器

(ev controller of Single Axis Rob



三/五轴机械手按键控制器

Key controller of three five Axis Robot

### 控制器特点

Features of the controller

● 采用8.0寸液晶显示屏 画面大,易操作。

### ● 步进动作

使用步进操作,机械手一步一步实施被设定好的动作, 可确认机械手的设定条件。

### ● 内置2种控制系统

固定式标准系统,使用简单方便; 开放式用户系统,NC程序的设定功能。

### ● 加速、减速重量调整

根据负载的重量,可以在操作盒执行设备的加速,减速调整。

### • 8.0-inch color LCD

Big screen, easy operation.

### Stepping Operation

Stepping operation causes the servo robot to execute the currently set operation step by step to verify the robot settings.

### • 2 control systems

Fixed standard system: easy to use; Open user system: NC program setting function.

### weight and speed adjustment

Can adjust the speed in the operation monitor according to the paylod.

# 横走式三轴/五轴伺服机械手

3/5 Axis AC Servo Driven Robots



### 产品特点 Product Features

适用于75~1300吨的各型卧式射出成型机,应用于外观及精度要求较高的成品及水口取出;手臂形式有单截式及双截式,单截式上下行程为600/800/900mm,双截式上下行程为900/1100/1500/1700mm。三轴(走行/前后/主臂)/五轴(走行/前后2个/主臂/副臂)驱动使用高性能的AC伺服马达驱动,具备超高速的取出时间,高钢性滑轨传动,搭配开放式伺服定位控制系统,实现高精度取出。

Three / Five Axis AC Servo Driven Robots are extensively suitable for horizontal injection molding machine from 75T to 1300T, being applied to take—out of finished products and spures, which has higher requirements on appearance and precision. The types of arm are with single—stage and telescopic, the vertical stroke of single stage arm are 600/800/900mm, and 900/1100/1500/1700mm for telescopic. Three axis (traverse/crosswise/main arm) / Five axis (traverse/crosswise/vertical main arm/vertical sub—arm) robots are driven by high performance AC servo motor, which is with a good performance of high speed take—out, moving based high rigidity slideway, and equipped with open style servo location controlling system to achieve the performance of high precision take—out.

# EUW-80系机械手

EUW-80 Series Robot



### 产品特点 Product Features

EUW-80系为全新开发的高速、高精、高刚性的全伺服注塑用线性机械手。

EUW-80 Series are the latest developed full servo driven linear robots for injection molding machines, with features of high speed, high precision and high rigidity.

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### 模温控制系统

### Mold Temperature Control System



### TTWB系列领航版水式模温机

TTWB Series Pilot Version Water Type Mold Temperature Controller

### 特点 Features:

- 超声波流量监测,实时监控媒体流量,流量计精度± 0.5%,对比涡轮、涡街等形式流量计流量损耗低;
- 模具热媒流道或热媒管道堵塞、泄露异常警报提醒,避免模温 异常而制造批量不良品;
- 更合理的结构设计较同类型产品提升10%左右热媒流量,节能 降耗同时负载能力更强;
- 较传统同类机型(浮球、电极检测等)工况要求更低,适用范围更广,热媒掺杂少许油渍、杂质,热媒高温高压等均不受影响,可长期稳定运行。
- Ultrasonic flow monitoring, real-time monitoring of media flow,flowmeter accuracy ± 0.5%, lower flow loss than turbine, vortex and other flow meters;
- Mold heat media runner or heat media pipeline blockage, leakage abnormal alarm alert, to avoid mold temperature abnormalities and manufacturing batch defective products;
- More reasonable structure design than the same type of products to improve about 10% of the heat media flow, energy saving and reduce consumption while the load capacity is stronger;
- Lower working condition requirements than traditional models (float,electrode detection, etc.), a wider range of applications, heat mediamixed with a little oil, impurities, high temperature and high pressure of the heat media are not affected, can be longterm stable operation.



### TTWP系列标准版水式模温机

TTWP Series Standard Version Water Type Mold Temperature Controller

### 特点 Features:

- 主要应用于模具的加热与恒温,以水为热媒介,使用成本低廉,有利于保证生产车间的工作环境;
- 自主研发控制器,性能稳定,控温精度±0.1℃,7寸触摸屏界面,显示直观,操作简单易懂,配置RS485通讯接口;
- 120℃低温机采用高效率水循环泵,180℃高温机采用磁力泵,无机械密封,不易泄露;
- 内部管路采用不锈钢材质制造,耐腐蚀、耐高压,恒温时间长,热效率高;
- 安全保护完善,故障显示,易于维修和保养。
- Mainly applied to the heating and constant temperature of moulds, using water as the heat medium, using low cost, which is conducive to ensuring the working environment of the production workshop;
- Self-developed controller, stable performance, temperature control accuracy ±0.1°C, 7" touch screen interface, display intuitive, simple and easy to understand operation, configuration RS485 communication interface;
- 120°C low temperature machine adopts high efficiency water circulation pump, 180°C high temperature machine adopts magnetic pump, no mechanical seal, not easy to leak;
- Internal piping made of stainless steel, corrosion-resistant, highpressure resistant, long thermostatic time, high thermal efficiency;
- Perfect safety protection, fault display, easy to repair and maintain.

### 除湿干燥系统

### Dehumidification And Drying System



### TDA系列节能型三机一体

TDA Series Energy-saving Three In One

### 特点 Features:

- 干燥料桶采用全镜面不锈钢双层保温和下吹式风管设计,提高干燥 效率:
- 送料系统配置截料阀,确保料管中无残余原料,避免原料回潮;
- 采用高精度滤芯除尘,可保护风机,确保设备运行稳定,置于设备 前方,便于清理保养;
- 采用单向送气系统设计,无须使用再生除湿系统;
- 7寸触摸屏操作界面,配置智能预约开关机功能、能耗显示与 RS485通讯接口。
- Drying barrel adopts full mirror stainless steel double insulation and down-blowing air duct design to improve drying efficiency;
- Feeding system is equipped with cut-off valve to ensure that there is no residual raw material in the material pipe and avoid raw material rewetting:
- Adopting high-precision cartridge to remove dust, which can protect
  the fan and ensure stable operation of the equipment, placed in front of
  the equipment, easy to clean and maintain;
- Adopt one-way air supply system design, no need to use regenerative dehumidification system;
- 7-inch touch screen operation interface, equipped with intelligent appointment switching function, energy consumption display and RS485 communication interface.



### TDB系列蜂巢转轮型三机一体

TDB Series Honeycomb Rotor Type Three In One

### 特点 Features:

- 100kg及以下机型除湿系统采用风冷冷却器结构,无需接冷却水也 能确保露点温度的稳定,100kg以上机型除湿系统采用水冷冷却器 结构,可确保更低的回风温度;
- 采用分子筛吸附式蜂巢,确保提供稳定的低露点干燥空气,露点可达-40℃;
- 采用无触点固态继电器控制加热器;
- 7寸触摸屏操作界面,配置智能预约开关机功能、能耗显示与 RS485通讯接口;
- 多种故障智能报警,报警日志可查询,为设备正常运行保驾护航, 三相电逆相缺相报警,加热器失效报警,风机过载报警,超温保护,输送异常报警等。
- Air-cooled cooler structure is adopted for dehumidification system of 100kg and below models to ensure stable dew point temperature without connecting cooling water; water-cooled cooler structure is adopted for dehumidification system of models above 100kg to ensure lower return air temperature;
- $\bullet$  The use of molecular sieve adsorption honeycomb to ensure the provision of stable low dew point dry air, the dew point can reach 40  $^\circ\! C;$
- Adopting non-contact solid state relay to control the heater;
- 7" touch screen operation interface, configured with intelligent appointment switching function, energy consumption display and RS485 communication interface;
- A variety of fault intelligent alarm, alarm log can be queried, for the normal operation of the equipment to escort, three-phase power reverse phase shortage alarm, heater failure alarm, fan overload alarm, over-temperature protection, delivery abnormal alarm, etc.

35 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 3

### 自动冷却系统

**Automatic Cooling System** 



### TCW系列水冷式冰水机

TCW Series Water-cooled Water Chiller



### TCA系列风冷式冰水机

TCA Series Water-cooled Water Chiller

### 特点 Features:

- 采用品牌压缩机,低噪音、高能效、高品质;
- 盘管式冰水机使用盘管式蒸发器,不锈钢管盘卷放置在水箱内,干净耐用;
- 内部管路布局合理,可有效降低能耗;
- 采用高、低压压力检测装置,能够准确判断系统压力;
- 7寸触摸屏操作界面,显示直观,操作简便,配有RS485通讯接口,可实现集中监控。
- Using brand compressors, low noise, high energy efficiency and high quality;
- Spiral type cold water machine using spiral type evaporator, stainlesssteel tube spiral evaporator placed in the water tank, clean and durable;
- Reasonable layout of internal piping, which can effectively reduceenergy consumption;
- Adopting high and low pressure detection device, which can accurately judge the system pressure;
- 7-inch touch screen operation interface, display intuitive, easy to operate, equipped with RS485 communication interface, can realize centralized monitoring.

# 粉碎回收系统

Pulverizing and recycling system



### TGL系列慢速静音粉碎机

TGL Series Slow Speed Silent Crusher

### 特点 Features:

- 主要用于机边粉碎水口料,适用于各类硬性及易脆塑胶水口的回收利用,尤其适合粉碎回收PC、尼龙、ABS等硬质水口料:
- 齿啃式刀具,滚刀采用优质SKD-11材质,正反定刀相同,正 定刀磨损后可将反定刀调转安装,延长使用寿命;
- 无筛网设计,粉碎颗粒均匀,粉尘含量极少;
- 进料斗采用双层隔音设计,内层为不锈钢材质,带有可视 料窗;
- 投料斗与上刀架可整体打开,清理方便快捷,进料斗与粉碎室 都带有定位装置,无需频繁定位,防止移动。
- Mainly used for machine side crushing runner/sprue, suitablefor all kinds of hard and easy brittle plastic runner/sprue recycling, especially suitable for crushing and recycling PC, nylon, ABS and other hard runner/sprue;
- Tooth gnawing cutter, hob knife using high-quality SKD-11 material, the same positive and negative fixed knife, the positive knife can be installed after the wear of the reverse fixed knife reversal to extend the service life:
- No screen design, crushed particles evenly, very little dust content;
- Feeding hopper with double-layer sound insulation design, the inner layer is made of stainless steel with visible material window;
- Feeding hopper and upper knife frame can be opened as a whole, easy and fast cleaning. Feeding hopper and crushing chamber are equipped with positioning device, no need for frequent positioning to prevent movement.

# **ROBOT AND AUTOMATION**

# 机器人与自动化

### 工业机器人产品目录

Industrial robot product catalog

### 拓斯达致力于为行业提供易用、好用的机器人

Topstar is committed to providing easy-to-use, good robot for the industry.

拓斯达凭借研发为王的理念,深耕机器人行业,经过多年沉淀,目前已经成功开发出六轴机器人,四轴scara机器人,Dalte并联机器人,并实现批量上市,满足各种自动化应用场景需求。

With the concept of R&D as the king, Topstar has been deeply engaged in the robot industry. After years of precipitation, it has successfully developed six–axis robots, four–axis scara robots, Delta parallel robots, and achieved batch marketing to meet the needs of various automatic application scenarios.



### SCARA系列 SCARA Robot

- 臂长Arm length 300~1000mm;
- 负载 Load 2~25kg;
- 主要应用于锂电、光伏、3C、医疗、包装等行业。
   Mainly used in lithium, photovoltaic, 3C, medical, packaging and other industries.



### 并联多关节系列 Parallel Multi-joint Series

- 臂长Arm length 600mm/800mm/1000mm/1200mm;
- 负载 Load 3~5kg;
- 主要应用于食品、3C、化工、包装等行业。
   Mainly used in food, 3c, chemical, packaging and other industries.



### 六轴多关节系列 Six Axis Multi-joint Series

- 臂长Arm length 715mm/912mm/1450mm/1813mm;
- 负载 Load 7-35kg;
- 主要应用于注塑、汽配、家居、新能源、3C等行业。
   Mainly used in injection molding, auto parts, home furnishing, new energy, 3C and other industries.



### 协作系列 Collaboration Series

- 臂长Arm length 600mm/900mm/1400mm;
- 负载 Load 3~10kg;
- 主要应用于包装、医疗、食品等行业。
   Mainly used in packaging, medical, food and other industries.

### SCARA系列

SCARA Robot



### 六轴多关节系列

Six-axis Multi-joint Series

产品型号 ROBOT MODEL	拓星云 TRV007-710	拓星云 TRV007-910	拓星际 R140−10−S	拓星际 R181−35−G
图示 Illustrations				
臂展 Arm Stroke 第1-6关节 1-6 Axis	715mm	912mm	1450mm	1813mm
最大负载 Max load	7KG	7KG	12KG	35KG
J4,J5轴允许负载转动惯量 J4,J5 Allowable Inertia Moment	16Nm/0.45kg · m²	16Nm/0.45kg · m²	29Nm/0.6kg · m²	115Nm/4.4kg · m²
J6轴允许负载转动惯量 J6 Allowable Inertia Moment	9Nm/0.14kg · m²	9Nm/0.14kg · m²	24Nm/0.58kg · m²	65Nm/1.6kg · m²
重复定位精度 Repeat Positioning Accuracy	±0.02mm	±0.03mm	±0.05mm	± 0.07mm
标配IO数量 Standard IO quantity	16DI/16DO(NPN)	16DI/16DO(NPN)	16DI/16DO(NPN)	16DI/16DO(NPN)
电压 Voltage	单相 220V±10%,50Hz	单相 220V±10%,50Hz	单相 220V±10%,50Hz	三相 380V,50Hz
机械臂防护等级 Arm protection level	IP40/IP67可选	IP40/IP67可选	IP65	IP65
控制柜防护等级 Control cabinet protection level	IP20/IP54可选	IP20/IP54可选	IP54	IP54

### 并联多关节系列

Parallel Multi-joint Series

产品型号 ROBC	产品型号 ROBOT MODEL 拓星际 F		拓星际 P080J-03-H	拓星际 P100J−03−H	拓星际 P120J-03-H
图示 Illustrations					
	+1轴 -1 Axis	600*200mm	800*250mm	1000*250mm	1200*350mm
额定负载 Rated load		2KG	2KG	2KG	3KG
最大负载 Max load		3KG	3KG	3KG	5KG
标准循环时间(s Standard Cycle		0.4秒/节拍(25/305/25(mm))	0.4秒/节拍(25/305/25(mm))	0.4秒/节拍(25/305/25(mm))	0.5 秒/节拍(25/305/25(mm))
重复定位精度	XYZ(mm)	± 0.1mm	± 0.1mm	± 0.1mm	±0.2mm
Repeat Positioning Accuracy	R(°)	± 0.1°	± 0.1°	± 0.1°	± 0.1°
标配IO数量 Standard IO qua	antity	12DI/16DO(NPN)	12DI/16DO(NPN)	12DI/16DO(NPN)	12DI/16DO(NPN)
电压 Voltage		单相 220V±10%,50Hz	单相 220V ±10%,50Hz	单相 220V ±10%,50Hz	单相 220V±10%,50Hz
机械臂防护等级 Arm protection I		IP54	IP54	IP54	IP54
控制柜防护等级 Control cabinet protection level		IP54	IP54	IP54	IP54

39 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD.

# 不被世界定义 做自定义的SCARA

TRH015-1000-400

### • 易用好用无忧切换

安装尺寸、软件操作功能符合主流用户习惯, 分体式高低错落的包裹方式,有别于传统的 丝杆与电机统一外壳包裹的形式,可灵活适 应各类生产场景, 当对小臂有延长需求时, 无需重新设计制作外壳,便于二次升级,降 低成本;

### • 真实的25KG带载能力

多维度形变一致性的设计,末端直连负载以 及高刚性的结构,从根本上满足负载需求;

### • 高载且高速, 标准循环时间0. 485

满足高负载需求的同时,通过惯量匹配及结 构刚度优化设计,获得较高的速度加速度, 较短的停稳时间,实现高载高速;

### • 可靠及稳定, 重复定位精度±0. 025mm

以新能源客户具体工艺为目标,满足高负载&高速度的 应用特点,机器人稳定工作的L10能做到两年以上;

# • 易维护

充分考虑维护保养便捷,能 够有效的减少故障排查及维 护保养的时间。

TRH015-800-200 TRH015-800-400

TRH015-1000-200

TRH015-1000-400

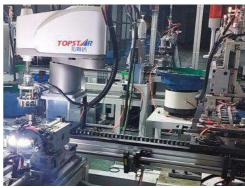
用于锂电、光伏、液晶面板搬运、上下料等

### 应用案例

**Application Case** 

### SCARA机器人应用案例

SCARA Robot Application Cases









### 六轴机器人应用案例

Six-axis Robot Application Case









41 TOPSTAR TOPSTAR 42 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD.

# **CNC SMART EQUIPMENT**

# CNC智能数控装备

### 立式加工中心

Vertical Machining Center

### 特点 Features:

**主轴**:选用主轴电机转速10000rpm, 最大扭矩达118N.M,额定扭矩最高达 52.2 N.M;

**机身结构:** Y轴采用滚柱多滑块线轨, 大跨距结构设计;

立柱: 使用人字形结构设计, 采用蜂窝 形加强筋设计,刚性高。

Spindle: use spindle motor speed 10000rpm, the maximum torque is up to 118N.M, and the rated torque is up to 52.2 N.M;

Body structure: Y-axis adopts roller multi-slider linear rail and large span structure

**主轴箱:** 采用内层加强筋,振动小,稳 Spindle box: adopts inner reinforcing ribs, low 定好,短鼻设计,内孔选用大钢珠,适 vibration, good stability, short nose design, large steel ball for inner hole, suitable for heavy cutting;

> Column: Herringbone structure design, honeycomb-shaped stiffener design, high



名称 Name	单位 unit	V856	V1165	V1370
X/Y/Z行程 X/Y/Z stroke	mm	800x550x600	1100x650x650	1300x700x700
工作台尺寸 Workbench size	mm	1000×550	1200×650	1400 × 800
工作台载重 Workbench load	kg	680	800	1000
主轴驱动方式 Spindle drive mode	1	直驱 Direct drive	直驱 Direct drive	直驱 Direct drive
主轴端面至台面距离 Distance from spindle end to table	mm	90 - 690	100 – 750	110-810
工作台T型槽(宽*槽*间距) T-slot of workbench (width*slot*spacing)	mm	18T×5×100	18T×5×110	18 x 7 x 105
主轴锥孔 Spindle taper	١	BT40	BT40	BT40
主轴转速 Spindle speed	r/min	12000	12000	12000
(X/Y/Z)快速移动 (X/Y/Z) fast moving	m/min	40/40/40	36/36/36	30/30/20
定位精度 positioning accuracy	mm	0.01	0.01	0.012
重定位精度 Relocation accuracy	mm	0.005	0.005	0.008
刀库 Tool library	ea	24	24	24
换刀时间 Tool change time	S	2.5	2.5	2.5
( X/Y/Z)滚珠丝杆 (X/Y/Z) Ball screw rod	mm	40/40/40	40/40/40	40/40/40
线性导轨(线轨宽度/滑块数量) Linear guide (width of linear guide/number of sliders)	mm	X:35x2 Y:45x2 Z:45x3	XY:45 x 2 Z:45 x 3	X:45x3 Y:45x2 Z:45x3
机器重量 Machine weight	kg	约5500 about 5500	约6700 about 6700	约7800 about 7800

### 应用领域 Delta Parallel Robot

广泛应用于新能源、汽车零配件、机械自动化、医疗器械、模具、夹具、自动化、铸件等行业。











### 钻攻中心

### **Drilling Center**

### 特点 Features:

高性能主轴:转速可达20000RPM, 可选24000RPM;

快,高效可靠,攻牙效果好;

主轴搭配油温控制系统: 自动温差探测 控制,保证主轴在恒温下运行,提高 主轴运行精度及寿命;

优异的力学性能,确保加工过程中良 好的稳定性;

响应速度快: 三轴移动部件运用拓扑优 化设计,提高部件结构与驱动系统刚 性,降低运动部件惯量,实现各轴高 动态响应;

加大行程和工作台: 更能满足客户 对于大尺寸零件的需求。

High-performance spindle: the speed can reach 20000RPM, 24000RPM is optional;

High-precision spindle direct connection 高精密的主轴直联结构:响应速度 structure: fast response speed, high efficiency and reliability, and good tapping effect;

> Spindle with oil temperature control system: automatic temperature difference detection and control, to ensure the spindle runs at a constant temperature, and improve the accuracy and life of the spindle;

高稳定性: 底座超大跨度六点支撑, High stability: The base has a large span and six-point support and excellent mechanical properties, to ensure good stability during

> Fast response speed: The three-axis moving parts are designed with topology optimization to improve the rigidity of the part structure and drive system, reduce the inertia of the moving parts, and achieve high dynamic response of each axis;

Increase the stroke and workbench it can better meet the needs of customers for large-size parts.



名称 Name	单位 unit	Т6
X/Y/Z行程 X/Y/Z stroke	mm	600x400x320
工作台尺寸 Workbench size	mm	700x420
工作台载重 Workbench load	kg	250
主轴驱动方式 Spindle drive mode	\	直驱 Direct drive
主轴端面至台面距离 Distance from spindle end to table	mm	170-490
工作台T型槽(宽*槽*间距) T-slot of workbench (width*slot*spacing)	mm	14T×3×120
主轴锥孔 Spindle taper	\	BT30
主轴转速 Spindle speed	r/min	20000
(X/Y/Z)快速移动 (X/Y/Z) fast moving	m/min	48/48/48 ( 36 )
定位精度 positioning accuracy	mm	0.008
重定位精度 Relocation accuracy	mm	0.005
刀库 Tool library	ea	21
换刀时间 Tool change time	S	1.4
(X/Y/Z)滚珠丝杆 (X/Y/Z) Ball screw rod	mm	28/28/32
线性导轨(线轨宽度/滑块数量) Linear guide (width of linear guide/number of sliders)	mm	XYZ:30x2
机器重量 Machine weight	kg	约3200 about 3200

### 应用领域 Delta Parallel Robot

广泛应用于新能源、汽车零配件、3C、医疗等行业。 Widely used in new energy, auto parts, 3C, medical and other industries.









43 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 44

# GMU-800五轴联动加工中心

GMU-800 5-axis Machining Center

### 特点 Features:

GMU-800系列是目前为数不多能胜任重型铣削加工的五轴 联动加工中心,通过搭载德国高端主轴技术及高刚性大扭矩 的齿轮传动A/C摇篮转台技术,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。

The GMU-800 series is one of the few 5-axis machining centers capable of heavy-duty milling operations. By equipping German high-end spindle technology and high rigidity and high torque gear-driven A/C cradle turntable technology, combined with precise analysis and optimized bed structure, the GMU-800 series can easily cope with the high-speed, high-efficiency and high-precision machining requirements of various materials.



	名称 Name	单位 Unit	GMU800	GMU800avi
加工区域	X/Y/Z行程 X/Y/Z Stroke	mm	850/950/550	850/950/550
Processing area	A/C行程 A/C stroke	deg	±120/360	±140/360
	X/Y/Z快速位移 X/Y/Z rapid displacement	m/min	32/32/32	32/32/20
进给系统 Feeding system	最大切削进给率 Maximum cutting feedrate	m/min	20	10
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/30	20/30
	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	15000/HSK-A63	12000/HSK-A63
主轴(标配) Spindle (standard)	功率(S1/S6-40%)Power (S1/S6-40%)	kw	18/22	15.5/21.7
	扭矩(S1/S6-40%)Torque (S1/S6-40%)	N.m	57/70	85/119
定位精度 Positioning accuracy	X/Y/Z	mm	0.008/0.008/0.007	0.008/0.008/0.007
ISO 10791–4:1998	A/C	ARCSEC	8/5	8/8
重复定位精度 Repeat positioning accuracy	X/Y/Z	mm	0.005/0.005/0.004	0.005/0.005/0.004
ISO 10791-4:1998	A/C	ARCSEC	8/5	5/5
	刀库容量 Tool magazine capacity	PCS	26T	26T
	换刀时间(刀-刀) Tool change time (tool - tool)	sec	12	12
自动换刀系统 Automatic tool change system	刀具最大长度 Max. tool length	mm	300	300
change system	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ80/Φ120	Φ80/Φ120
	刀具最大重量 Max. tool weight	kg	8	8
工作台	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	180-730	180-730
Workbench	工作台尺寸/最大承重 Table size/maximum load capacity	Mm/KG	Φ800/800	Φ800/800
	占地面积(长x宽) Floor space (LxW)	mm²	4800 x 3900	4800 x 3855
机床尺寸	机床总高 Total height of machine tool	mm	3500	3470
Machine Size	机床净重 Net weight of machine tool	kg	17000	17000
	电力需求 Power requirement	kw	60	60

### 应用领域 Delta Parallel Robot

广泛应用于民用航工。

It is widely used in civil aerospace industry.









# GMU-600五轴联动加工中心

GMU-600 5-axis Machining Center

### 特点 Features:

GMU-600系列为天车龙门式五轴联动加工中心,全新一代 GMU600能够轻松解决国内精密零件高效率、柔性化的加工 要求,它能够"快、稳、准"实现精密零件的精准高效加 工,广泛适用于汽车工业、航空工业、工业设备、模具行业 等精密机械加工领域。

GMU-600 series is an overhead gantry type 5-axis machining center. The new generation GMU600 can easily solve the requirements of high efficiency and flexible machining of domestic precision parts, which can achieve precise and efficient machining of precision parts "fast, stable and accurate", and is widely used in the automotive industry, aviation industry, industrial equipment, mold industry and other precision machinery processing fields.



	名称 Name	单位 Unit	GMU600
加工区域	X/Y/Z行程 X/Y/Z Stroke	mm	600/910/450
Processing area	A/C行程 A/C stroke	deg	±120/360
	X/Y/Z快速位移 X/Y/Z rapid displacement	m/min	40/40/40
进给系统 Feeding system	最大切削进给率 Maximum cutting feedrate	m/min	20
	A/C轴快进速度 A/C axis fast feed rate	rpm	20/80
	主轴最高转速/锥柄 Max. spindle speed/taper shank	rpm	20000/HSK-A63
主轴(标配) Spindle (standard)	功率(S1/S6-40%)Power (S1/S6-40%)	kw	22/26.4
	扭矩(S1/S6-40%)Torque(S1/S6-40%)	N.m	61.3/73.5
定位精度 Positioning accuracy	X/Y/Z	mm	0.008/0.008/0.007
ISO 10791–4:1998	A/C	ARCSEC	8/8
重复定位精度 Repeat positioning	X/Y/Z	mm	0.005/0.005/0.004
accuracy ISO 10791-4:1998	A/C	ARCSEC	5/5
	刀库容量 Tool magazine capacity	PCS	26T
Ċ-\\\	换刀时间(刀-刀) Tool change time (tool - tool)	sec	5
自动换刀系统 Automatic tool change system	刀具最大长度 Max. tool length	mm	300
Grange system	刀具最大直径/相邻无刀 Max. tool diameter/adjacent no tool	mm	Φ80/Φ120
	刀具最大重量 Max. tool weight	kg	8
工作台	工作台到主轴鼻端距离 Distance from table to spindle nose	mm	150-570
Workbench	工作台尺寸/最大承重 Table size/maximum load capacity	Mm/KG	Φ500/300
	占地面积(长x宽) Floor space (LxW)	mm²	4700 x 3800
机床尺寸	机床总高 Total height of machine tool	mm	3100
Machine Size	机床净重 Net weight of machine tool	kg	13000
	电力需求 Power requirement	kw	57

### 应用领域 Delta Parallel Robot

广泛应用于精密零件。

It is widely used for precision parts.







轮廓 Silhouette



拓斯达小程序、客户服务流程、

售后服务、全球服务网点

Topstar Applet After-Sale Service process After-Sale Service Global Service Net

47 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD.

# **TOPSTAR APPLET**

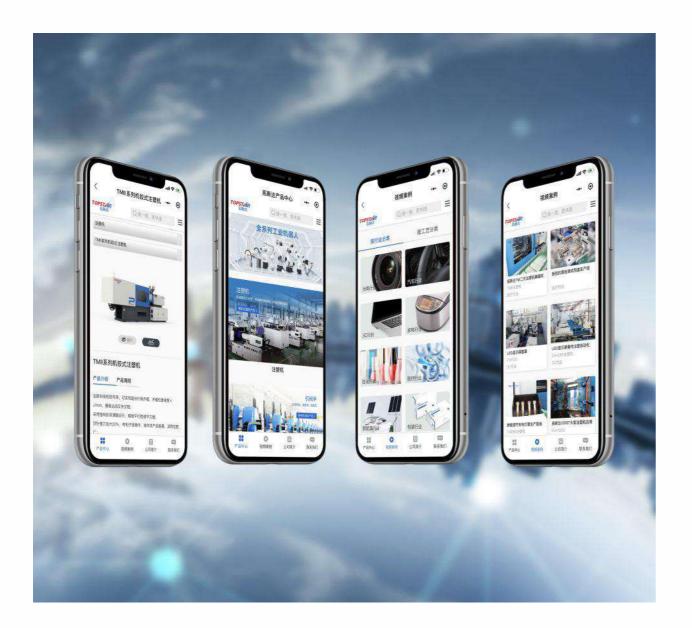
# 拓斯达小程序

### 拓斯达小程序-量身打造企业自动化解决方案

Topstar Applet - Tailored to enterprises for automation solutions

拓斯达小程序是拓斯达科技于2022年推出的基于微信小程序的移动信息平台。用户只需通过微信小程序搜索"拓斯达",就可以随时随地观看百余家企 业自动化应用生产线,涵盖塑胶、五金、装配等几十种行业工艺应用案例。

Topstar Applet is a mobile information platform based on Wechat Applet, which is launched by Topstar Technology in 2022. Just by searching "Topstar" through Wechat Applet, users can watch anytime and anywhere more than a hundred enterprises' automation production lines covering dozens of application cases in the industries of plastics, hard wares, assemblies, etc.



### 拓斯达小程序的功能

Features of Topstar Applet



### 快速查找

操作简单,架构清晰,搜索关键词即可 查找相关产品及视频案例;

### Quick search

Easy operation, clear structure, search



### 方便转发

基于微信小程序移动平台,可通过微信 进行分级界面及所选产品进行转发分享;

### Convenient forwarding

Based on WeChat applet mobile platform the graded interface, and selected



### 资料齐全

集产品图片、参数、海报、简易手册、 案例视频于一体的信息平台,产品资料 实时更新。

### Complete information

real-time updates of product information

### 拓斯达小程序的便利

Convenience of Topstar Applet



### 拿出手机, 走进上百家企业车间考察

Investigate workshop in hundreds of enterprises through the video

在视频案例中可轻松查看近百家车间自 动化生产线现场视频,最真实的应用案 例对比借鉴,轻松解决预约客户上门观 看的诸多不便和往返时间成本, 迅速高 效了解项目功能;

In the "video case" you can easily view nearly a hundred of workshop automatio about long distances to visit, save the time and efficient understand Project



### 各种工艺 自动化都能找到借鉴

You can find various samples about automation solutions.

无论您是注塑、压铸、冲压、组装、喷 涂、精雕、CNC上下料、打磨抛光等 的代工序,还是整厂自动化解决方案, 都能在拓斯达小程序找到合适的项目视 频和产品资料;

Find the right project video and product information in Topstar Applet, include different procedure such as injection molding, die casting, stamping, assembly spraying, carved, CNC loading unloading, polishing, whole plant automation



### 拓斯达全系产品资料库

TOPSTAR product database

除了解决方案和视频,您还可以通过拓 斯达小程序全面了解拓斯达产品设备信 息,节省您查找产品资料的时间。

In addition to solutions and videos, you through the Topstar Applet, saving you time to find product information.

### 如何访问拓斯达小程序?

How to access Topstar Applet?

您可以通过以下任何方式进入拓斯达小程序:

You can enter Topstar Applet in the following two ways:





使用微信扫描左边小程序二维

Use WeChat to scan the QR code of the applet on the left

微信小程序搜索 ( ) 拓斯达



使用微信搜索小程序-"拓斯达"即可进入。

Use WeChat to search the applet "Topstar" to enter.

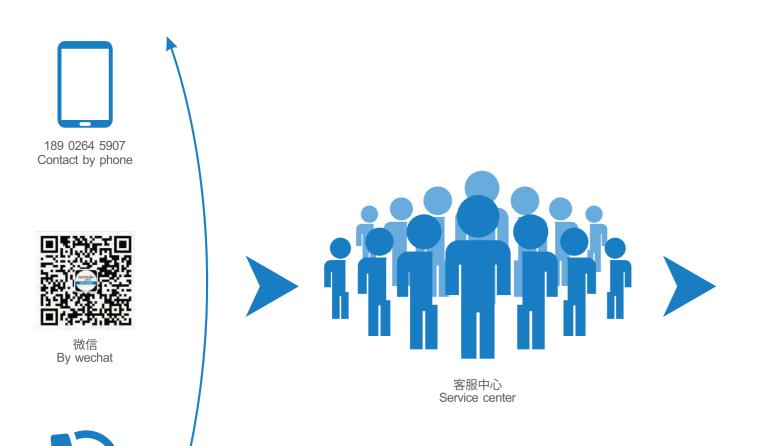
49 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 50

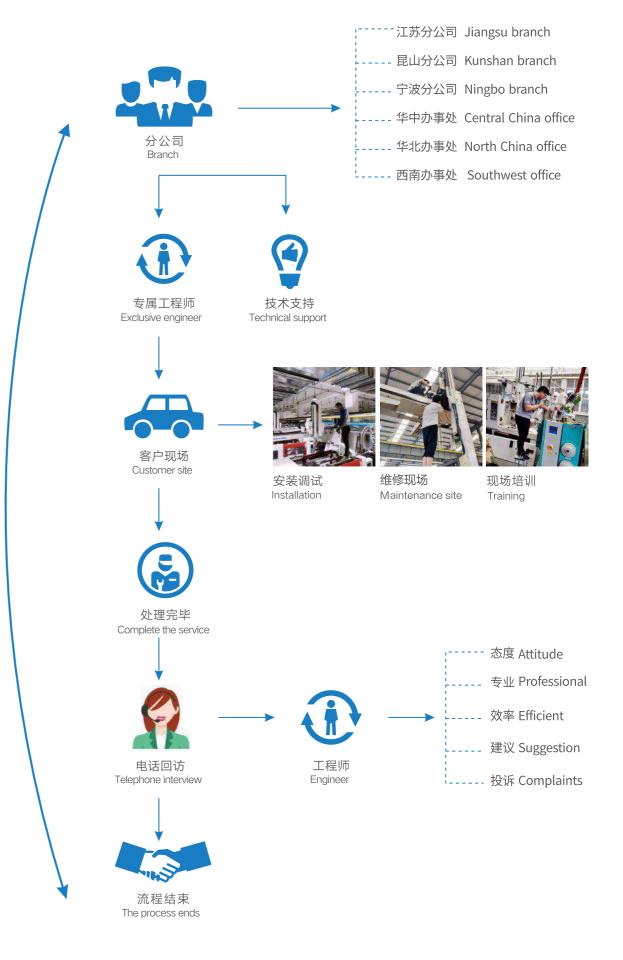
# **CUSTOMER SERVICE FLOW**

# 客户服务流程

400-096-8005

区别于传统设备供应商以产品推销和质量管控作为企业重点,拓斯达在潜心打磨产品的同时,以优质售后服务践行"全心全意为客户服务"的核心价值观。 Different from traditional equipment suppliers to product marketing and quality control as the focus of the enterprise, TOPSTAR in the subtle polishing of products at the same time, quality after-sales service to practice the core values of "wholeheartedly for customer service".





51 GUANGDONG TOPSTAR TECHNOLOGY CO.,LTD. TOPSTAR TOPSTAR TOPSTAR TOPSTAR TECHNOLOGY CO.,LTD. 52

# **AFTER-SALE SERVICE**

# 售后服务



### 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;

### Fast Response

Quickly respond to customer needs, collect customer site information and record the failure, give reasonable maintenance Suggestions;



### 快速到达

快速到达客户现场,进行设备维修;

### Fast Arrival

Quickly arrive at customer site for equipment maintenance;



### 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 Processin

Quickly processing to help customers adjust the equipment to the best state in the first time;



### 快速验收

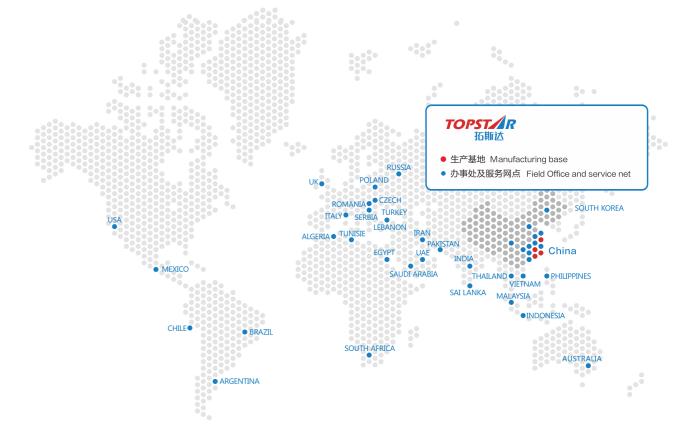
快速完成服务项目验收。

### Fast Acceptance

Quickly complete the service project acceptance.

# **GLOBAL SERVICE NET**

全球服务网点



# **SINCERELY APPRECIATE**

衷心感谢

### 超过15000家客户见证并长期支持

Over 15000 customers have witnessed TOPSTAR growth and long supports





助力企业智能改造、逐步帮助企业实现智能化工厂、新布局

Help the intelligent transformation of enterprises . Gradually help enterprises realize intelligent chemical plant . New Layout

# **HELP THE INTELLIGENT TRANSFORMATION OF ENTERPRISES**

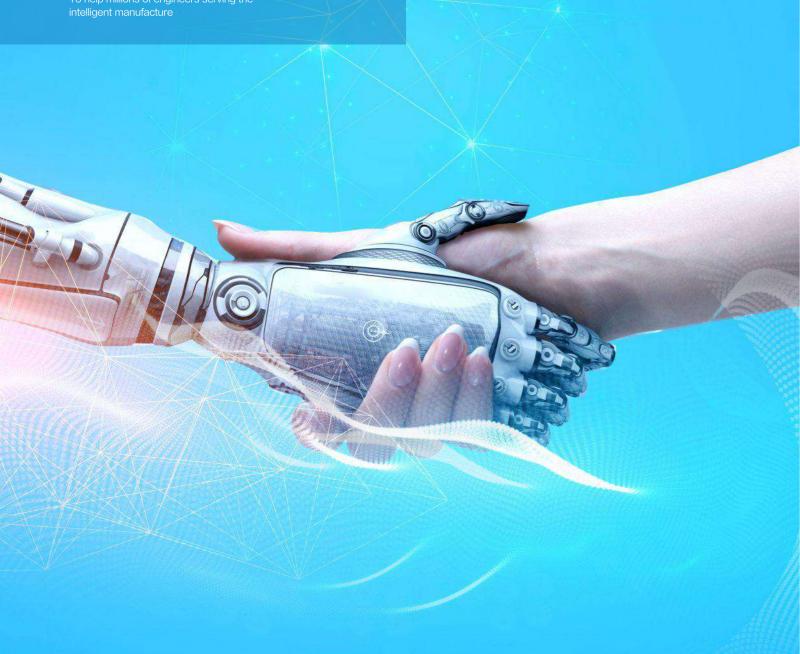
助力企业智能改造

企业使命 Enterprise Mission

让工业制造更美好

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



# **GRADUALLY HELP ENTERPRISES REALIZE INTELLIGENT CHEMICAL PLANT**

逐步帮助企业实现智能化工厂



# **NEW LAYOUT**

新布局





苏州吴中经济开发区 Suzhou Wuzhong Economic Development Zone 华东研发制造基地 East China R&D and Manufacturing Base



大岭山连平 Lianping, Dalingshan Town 拓斯达智能设备总部基地

opstar Intelligent Equipment Headquarters Base