公司总部及子公司联系方式

中国华南研发制造基地
South China R&D and Manufacturing Base

广东拓斯达科技股份有限公司
Guangdong Topstar Technology Co., Ltd.

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

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

中国华东研发制造基地
East China R&D and Manufacturing Base

江苏拓斯达机器人有限公司
Jiangsu Topstar Robot Co., Ltd.

地址：江苏省苏州市吴中经济开发区郭巷街道凇葭路1999号
电话：0512-8686 4305
手机：185 0156 0757

ADD: No.1999 Songjia Road, Guoxiang Street, Wuzhong Economic Development Zone, Suzhou City, Jiangsu Province
TEL: 0512-8686 4305
MOB: 185 0156 0757

苏州拓斯达智能装备有限公司
Suzhou Topstar Intelligent Equipment Co., Ltd.

地址：江苏省苏州市吴中经济开发区郭巷街道凇葭路1999号C栋1楼
电话：0512-5288 9310
手机：185 0156 0757

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
Ningbo Topstar Robot Technology Co., Ltd.

地址：浙江省余姚市凤山街道舜汇东路93弄
电话：86-574-8610 5571
传真：86-574-8610 5571
手机：137 7723 2779

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
TOPSTAR (VIETNAM) TECHNOLOGY CO.,LTD.

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

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

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

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TOPSTAR 拓斯达 | 让工业制造更美好
Making Industrial Manufacturing Better

拓斯达机器人产品介绍手册

Topstar Robots Product Introduction Manual

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

股票代码 Stock Code300607

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、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。公司在潜心打磨产品的同时，着眼全球市场，挖掘海外市场需求，在越南成立拓斯达（越南）科技有限公司，紧抓拓展海外市场增量的机遇，提升海外市场竞争力。

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 4industrial robots, injection molding machines, and CNC, as well as three core technologies of control, servo, and vision, to provide manufacturing enterprises with an overall smart factory solution. While concentrating on bettering the products, the company focus on the global markets and explore overseas market demands, and establish first in Vietnam the subsidiary company Topstar (Vienam) Technology Co.,Ltd., and also seize the opportunity to expand overseas market share to make itself more competitive in the overseas markets.

注册资本 Registered Capital	4.25亿元	办事处近 Offices	30家	服务客户超 Serving Customers	15000家
授权专利 Patents	672项	软件著作权 Software Copyright	72项	研发技术人员近 R&D Technicians	1000人

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, 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.

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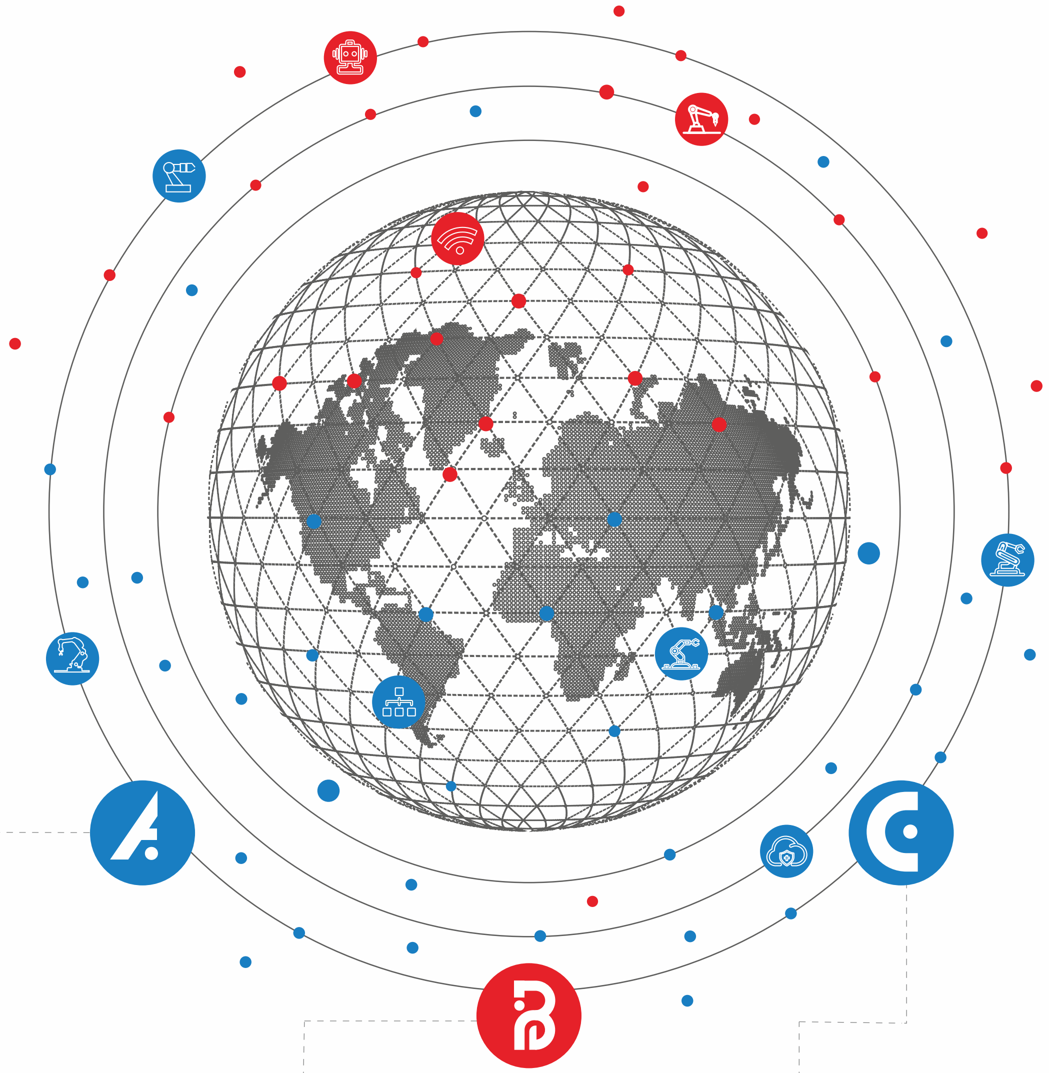
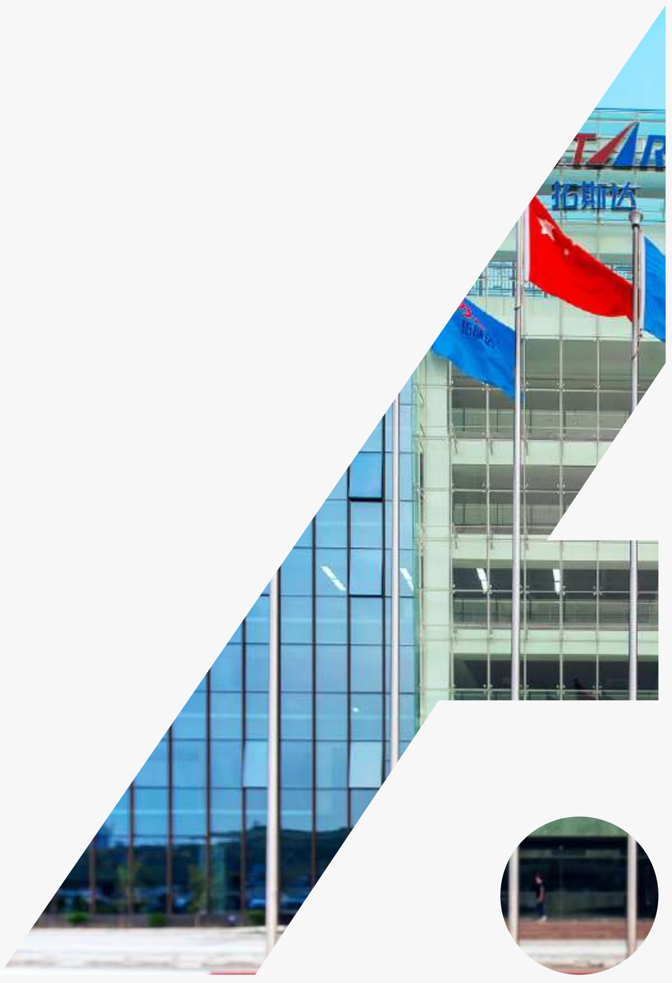


TOPSTAR
拓斯达

PRODUCT SERIES
产品系列

CHAPTER OF SERVICE
客户服务——服务平台



拓斯达
TOPSTAR

企业文化、资质评定、发展历程

Company Culture、Qualification evaluation、Development History

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

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

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.

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672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、672 technology patenes for products、Guangdong province enterprise technology center 、South China University of technology production and research cooperation base、School-enterprise cooperation practice base....

DEVELOPMENT HISTORY
发展历程

2007
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。

2007

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.

2008
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。

2008

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

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

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

2009
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。

2009

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.

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 operator.

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.

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”。

2011

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 High-end Forum.

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。

2012

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.

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。

2013

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.

2014
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。

2014

Listed in the new OTC market and took the lead in “machines replacing humans” policy

Listed on the new OTC market and realized concurrent directional add-issuance.

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.

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。

2015

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。

2016

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

2017
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

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 system integrating hardware and software 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
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、置地松山湖。

2018

Relocated to the new park and released new company mission

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 Day session.

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.

2019
拿结果 强组织 做价值

驼驮科技成立，布局产业互联网；

公开增发募集资金6.5亿元用于苏州生产基地建设；

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 internet.

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。

2020

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 to injection molding businesses.

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
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；

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方案研发及产业化项目；

拓斯达智能设备总部基地（大岭山连平）项目完成摘牌；

布局五轴高端数控机床赛道，控股埃弗米。

2021

Strengthened strategies and initiated platform-oriented 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, Dalingshan).

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系列高速机器人齐面市；

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。

2022

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.

产品系列
PRODUCT SERIES

SCARA系列、六轴多关节系列、并联多关节系列

Scara Series、6 Axis Multi-joint Series、Parallel Multi-joint Series

INDUSTRIAL ROBOT PRODUCT CATALOG
工业机器人产品目录

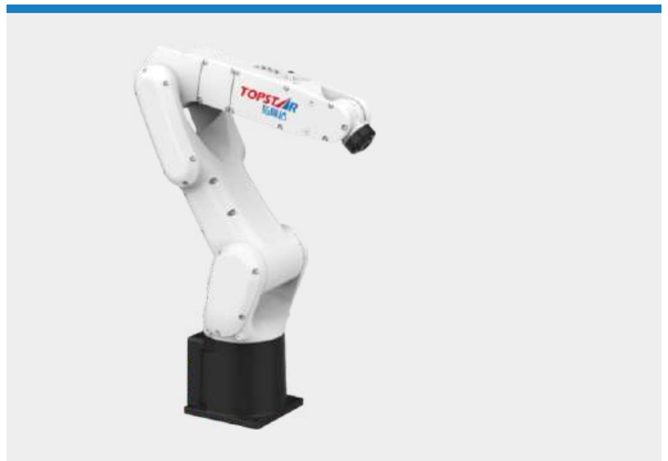
拓斯达致力于为行业提供易用、好用的机器人
Topstar is committed to providing easy-to-use, good robot for the industry.

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.



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,3Cand 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.

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 SERIES

产品型号 ROBOT MODEL		拓星辰 TRH002-300-150	拓星辰 TRH002-400-150	拓星辰 TRH002-500-150	拓星辰 TRH002-600-150	拓星辰 TRH002-700-150	拓星辰 TRH005-600-200	拓星辰 TRH005-700-200	拓星辰 TRH005-800-200	拓星辰 TRH010-800-400-S	拓星辰 TRH010-1000-400-S	拓星辰 TRH010-800-400-H	拓星辰 TRH010-1000-400-H	拓星辰 TRH015-800-400	拓星辰 TRH015-1000-400
图示 Illustrations															
臂展 Arm Stroke	第1-2关节 1-2 Axis	300mm	400mm	500mm	600mm	700mm	600mm	700mm	800mm	800mm	1000mm	800mm	1000mm	800mm	1000mm
Z轴行程 Z axis Stroke		150mm	150mm	150mm	150mm	150mm	200mm	200mm	200mm	400mm	400mm	400mm	400mm	400mm	400mm
负载 Payload	额定负载 Rated load	2KG	2KG	2KG	2KG	2KG	5KG	5KG	5KG	10KG	10KG	10KG	10KG	15KG	15KG
	最大负载 Max load	5KG	5KG	5KG	5KG	5KG	10KG	10KG	10KG	20KG	20KG	20KG	20KG	25KG	25KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.01kg · ㎡	0.01kg · ㎡	0.01kg · ㎡	0.01kg · ㎡	0.01kg · ㎡	0.03kg · ㎡	0.03kg · ㎡	0.03kg · ㎡	0.1kg · m²	0.1kg · m²	0.5kg · m²	0.5kg · m²	0.5kg · ㎡	0.5kg · ㎡
	最大 Max	0.1kg · ㎡	0.1kg · ㎡	0.1kg · ㎡	0.1kg · ㎡	0.1kg · ㎡	0.3kg · ㎡	0.3kg · ㎡	0.3kg · ㎡	0.5kg · m²	0.5kg · m²	1.5kg · m²	1.5kg · m²	1.5kg · ㎡	1.5kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.01mm	±0.01mm	±0.01mm	±0.015mm	±0.015mm	±0.015mm	±0.015mm	±0.02mm	±0.025mm	±0.025mm	±0.025mm	±0.025mm	±0.025mm	±0.025mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.33s	0.33s	0.33s	0.38s	0.38s	0.39s	0.4s	0.43s	0.39s (10Kg)	0.4s (10Kg)	0.42s (10Kg)	0.43s (10Kg)	0.48s (15kg)	0.48s (15kg)

六轴多关节系列 | 6 AXIS MULTI-JOINT SERIES

产品型号 ROBOT MODEL		拓星云 TRV007-710	拓星云 TRV007-910	拓星际 R091-10-S	拓星际 R140-10-S	拓星际 R184-20-M	拓星际 R181-35-G
图示 Illustrations							
臂展 Arm Stroke	第1-6关节 1-6 Axis	715mm	912mm	915mm	1450mm	1840mm	1813mm
最大负载 Max load		7KG	7KG	10KG	12KG	20KG	35KG
J4，J5轴允许负载力矩/转动惯量 J4,J5 Moment/Inertia		16Nm/0.45kg · ㎡	16Nm/0.45kg · ㎡	12Nm/0.35 kg · ㎡ 10Nm/0.3 kg · ㎡	29Nm/0.6kg · ㎡	103.5 Nm/3.4 kg · ㎡ 101.6Nm/3.2 kg · ㎡	115Nm/4.4kg · ㎡
J6轴负载力矩/转动惯量 J6 Moment/Inertia		9Nm/0.14kg · ㎡	9Nm/0.14kg · ㎡	6Nm/0.1 kg · ㎡	24Nm/0.58kg · ㎡	63.5Nm/1.8 kg · ㎡	65Nm/1.6kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.02mm	±0.03mm	±0.03mm	±0.05mm	±0.05mm	±0.07mm
标配IO数量 Standard IO quantity		16DI/16DO(NPN)	16DI/16DO(NPN)	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220VAC 50Hz	单相 220V±10% 50Hz	三相380VAC 50Hz	三相380V 50Hz
机械臂防护等级 Arm protection level		IP40/IP67可选	IP40/IP67可选	IP54	IP65	IP65	IP65
控制柜防护等级 Control cabinet protection level		IP20/IP54可选	IP20/IP54可选	IP20	IP54	IP54	IP54

并联多关节系列 | PARALLEL MULTI-JOINT SERIES

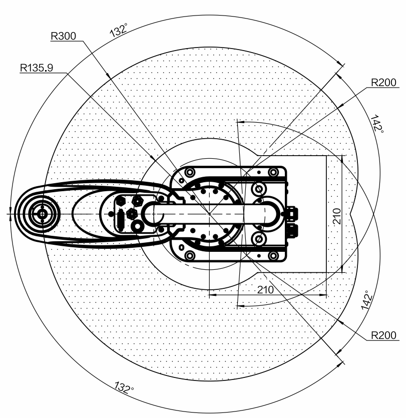
产品型号 ROBOT MODEL		拓星际 P060J-03-H	拓星际 P080J-03-H	拓星际 P100J-03-H	拓星际 P120J-03-H
图示 Illustrations					
臂展 Arm Stroke	3+1轴 3+1 Axis	600*200mm	800*180mm	1000*160mm	1200*250mm
额定负载 Rated load		2KG	2KG	2KG	2KG
最大负载 Max load		3KG	3KG	3KG	3KG
标准循环时间(s) Standard Cycle Time		0.4 秒/节拍 (25/305/25(mm))	0.4 秒/节拍 (25/305/25(mm))	0.4 秒/节拍 (25/305/25(mm))	0.4 秒/节拍 (25/305/25(mm))
重复定位精度 Repeat Positioning Accuracy	XYZ(mm)	±0.05mm	±0.05mm	±0.05mm	±0.05mm
角度定位精度 Angle Positioning Accuracy	R(°)	0.05°	0.05°	0.05°	±0.05°
标配IO数量 Standard IO quantity		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 leve		IP54	IP54	IP54	IP54
控制柜防护等级 Control cabinet protection level		IP54	IP54	IP54	IP54

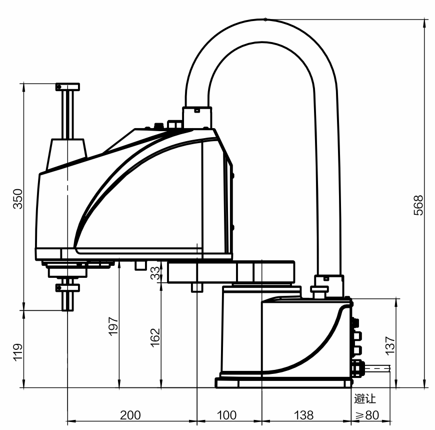
SCARA系列 | SCARA SERIES

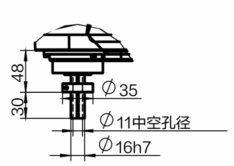
拓星辰 TRH002-300-150

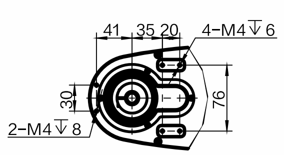
产品型号 ROBOT MODEL		TRH002-300-150
臂展 Arm Stroke	第1-2关节 1-2 Axis	300mm
Z轴行程 Z axis Stroke		150mm
负载 Payload	额定负载 Rated load	2KG
	最大负载 Max load	5KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.01kg · ㎡
	最大 Max	0.1kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.01mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.33s
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±142°
	第3关节 J3 Axis	150mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	720° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1067mm/s
	第4关节 J4 Axis	1946° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		0.8KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		13.5KG

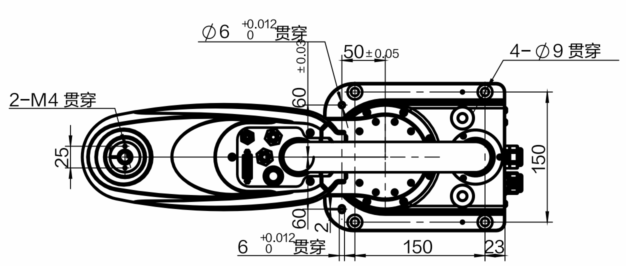
运动空间及外形安装尺寸图
Motion range and installation dimension drawing







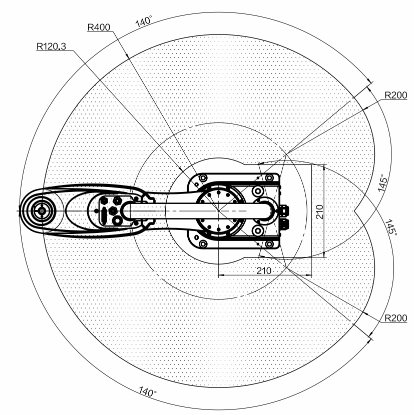


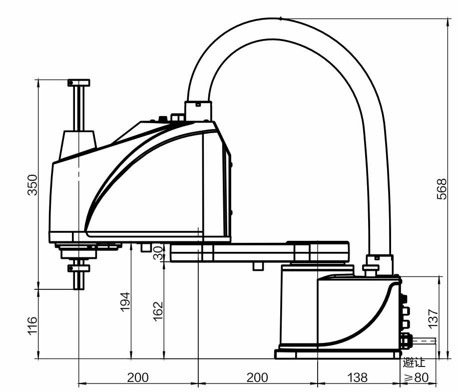


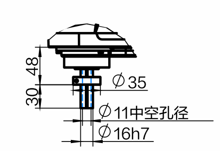
拓星辰 TRH002-400-150

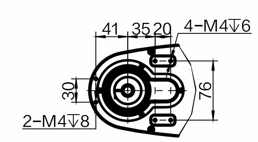
产品型号 ROBOT MODEL		TRH002-400-150
臂展 Arm Stroke	第1-2关节 1-2 Axis	400mm
Z轴行程 Z axis Stroke		150mm
负载 Payload	额定负载 Rated load	2KG
	最大负载 Max load	5KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.01kg · ㎡
	最大 Max	0.1kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.01mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.33s
运动范围 Movement range	第1关节 J1 Axis	±140°
	第2关节 J2 Axis	±145°
	第3关节 J3 Axis	150mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	720° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1067mm/s
	第4关节 J4 Axis	1946° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		0.8KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		14KG

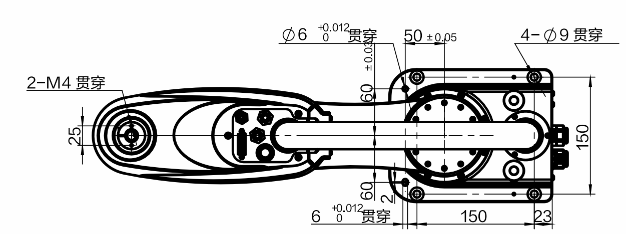
运动空间及外形安装尺寸图
Motion range and installation dimension drawing











拓星辰 TRH002-500-150

产品型号 ROBOT MODEL		TRH002-500-150
臂展 Arm Stroke	第1-2关节 1-2 Axis	500mm
Z轴行程 Z axis Stroke		150mm
负载 Payload	额定负载 Rated load	2KG
	最大负载 Max load	5KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.01kg · ㎡
	最大 Max	0.1kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.01mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.33s
运动范围 Movement range	第1关节 J1 Axis	±136°
	第2关节 J2 Axis	±142°
	第3关节 J3 Axis	150mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	720° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1067mm/s
	第4关节 J4 Axis	1946° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		0.8KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		14.5KG

±0.01mm 重复定位精度 Repeat Positioning Accuracy

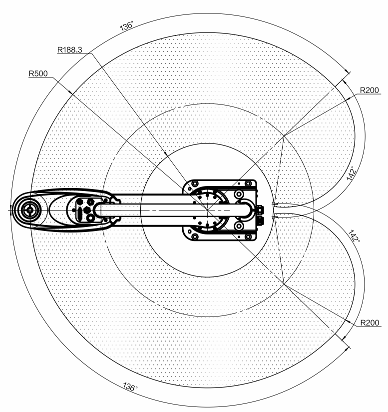
2KG/5KG 额定/最大负载 Rated load Max load

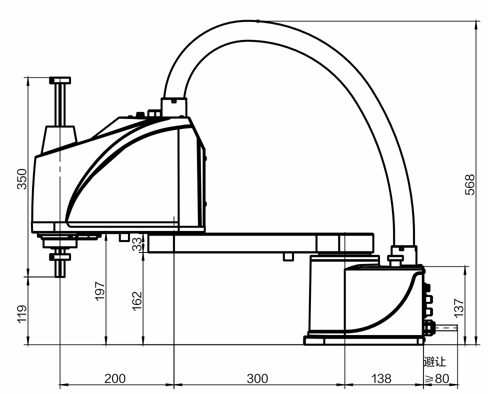
0.33s 标准循环时间 Standard Cycle Time

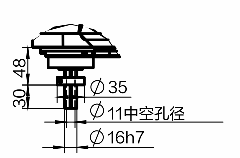
500mm 臂展 Arm Stroke

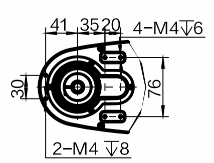
运动空间及外形安装尺寸图

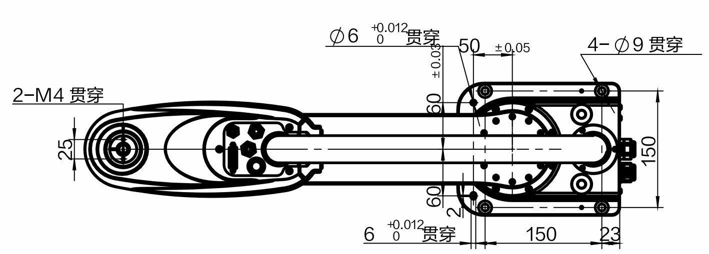
Motion range and installation dimension drawing











拓星辰 TRH002-600-150

产品型号 ROBOT MODEL		TRH002-600-150
臂展 Arm Stroke	第1-2关节 1-2 Axis	600mm
Z轴行程 Z axis Stroke		150mm
负载 Payload	额定负载 Rated load	2KG
	最大负载 Max load	5KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.01kg · ㎡
	最大 Max	0.1kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.015mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.38s
运动范围 Movement range	第1关节 J1 Axis	±131°
	第2关节 J2 Axis	±144°
	第3关节 J3 Axis	150mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	420° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1067mm/s
	第4关节 J4 Axis	1946° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		1.35KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		18KG

±0.015mm 重复定位精度 Repeat Positioning Accuracy

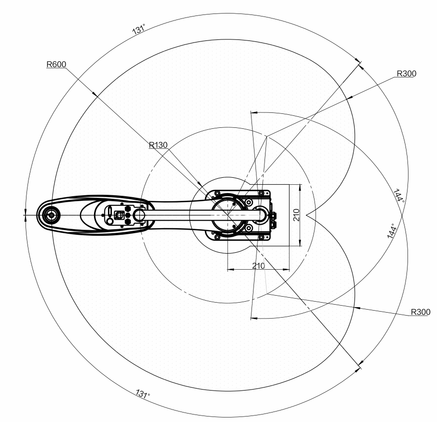
2KG/5KG 额定/最大负载 Rated load Max load

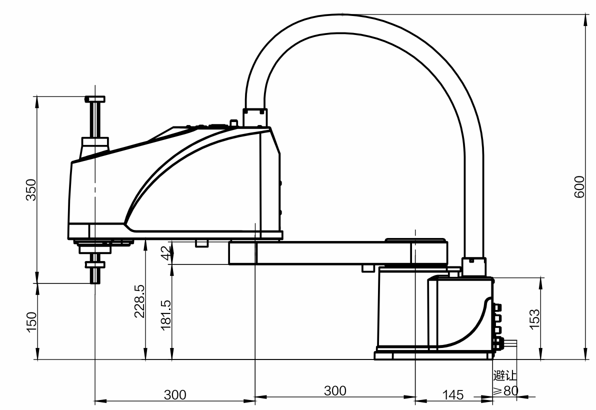
0.38s 标准循环时间 Standard Cycle Time

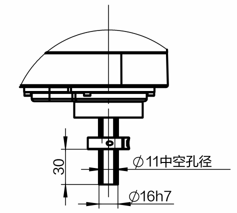
600mm 臂展 Arm Stroke

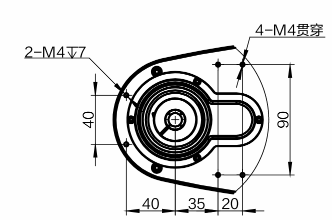
运动空间及外形安装尺寸图

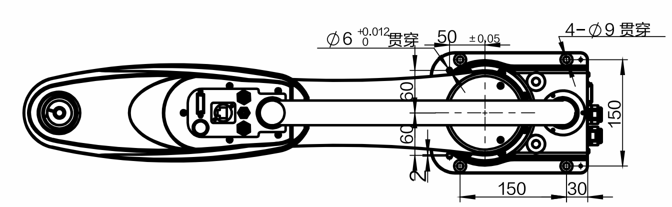
Motion range and installation dimension drawing











拓星辰 TRH002-700-150

产品型号 ROBOT MODEL		TRH002-700-150
臂展 Arm Stroke	第1-2关节 1-2 Axis	700mm
Z轴行程 Z axis Stroke		150mm
负载 Payload	额定负载 Rated load	2KG
	最大负载 Max load	5KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.01kg · ㎡
	最大 Max	0.1kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.015mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.38s
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±144°
	第3关节 J3 Axis	150mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	420° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1067mm/s
	第4关节 J4 Axis	1946° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		1.35KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		19.5KG

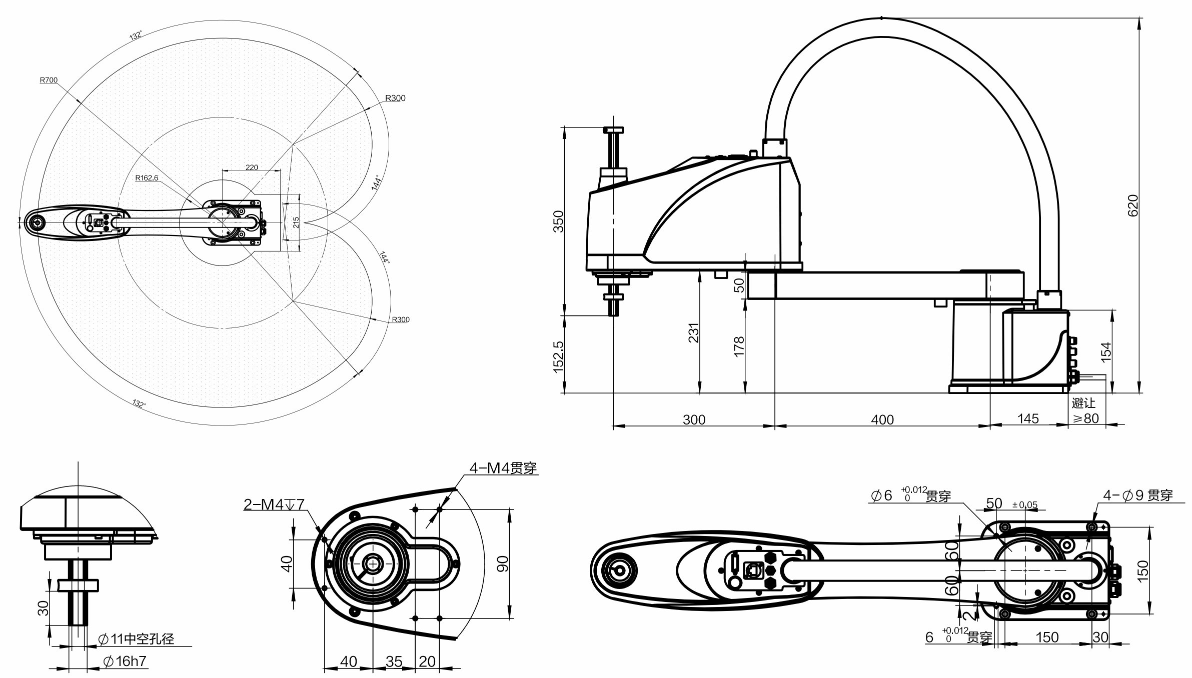
±0.015mm
重复定位精度
Repeat Positioning Accuracy

2KG/5KG
额定/最大负载
Rated load Max load

0.38s
标准循环时间
Standard Cycle Time

700mm
臂展
Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing



拓星辰 TRH005-600-200

产品型号 ROBOT MODEL		TRH005-600-200
臂展 Arm Stroke	第1-2关节 1-2 Axis	600mm
Z轴行程 Z axis Stroke		200mm
负载 Payload	额定负载 Rated load	5KG
	最大负载 Max load	10KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.03kg · ㎡
	最大 Max	0.3kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.015mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.39s
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±150°
	第3关节 J3 Axis	200mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	420° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1133mm/s
	第4关节 J4 Axis	2286° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		1.55KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		21KG

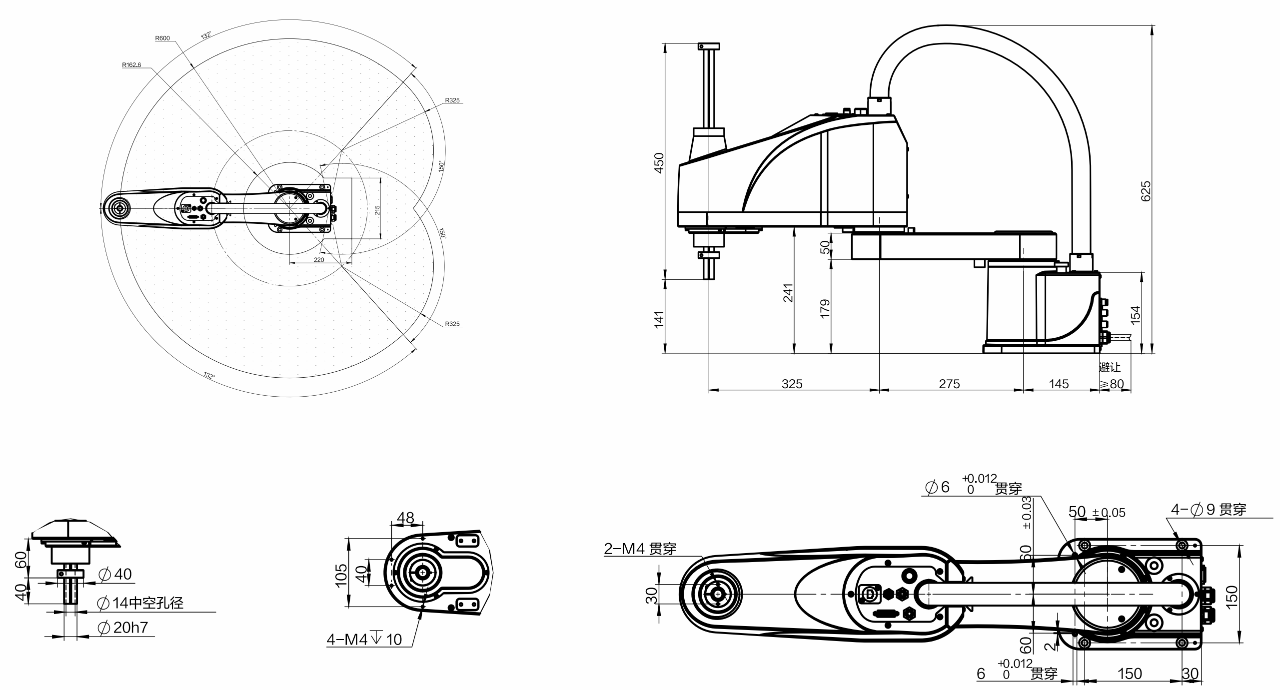
±0.015mm
重复定位精度
Repeat Positioning Accuracy

5KG/10KG
额定/最大负载
Rated load Max load

0.39s
标准循环时间
Standard Cycle Time

600mm
臂展
Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing

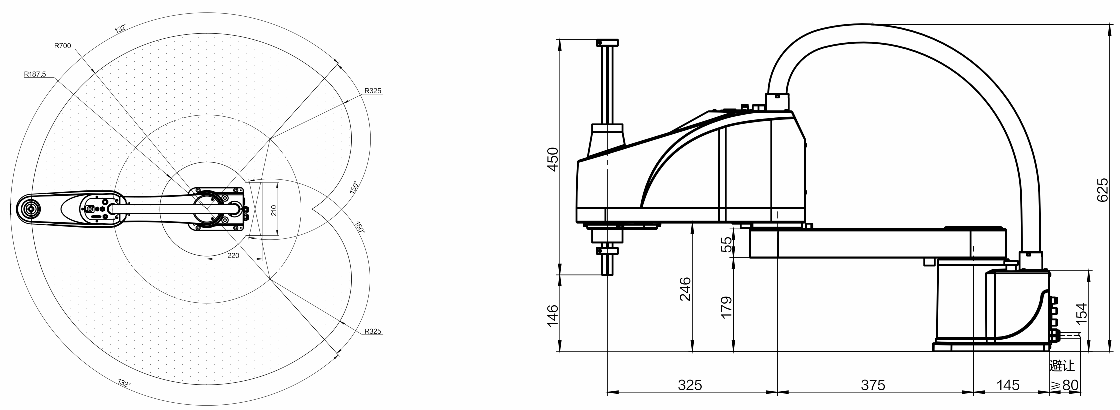


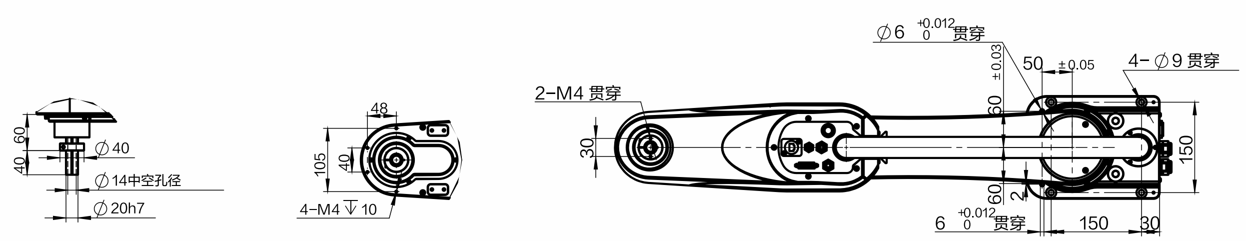
拓星辰 TRH005-700-200

产品型号 ROBOT MODEL		TRH005-700-200
臂展 Arm Stroke	第1-2关节 1-2 Axis	700mm
Z轴行程 Z axis Stroke		200mm
负载 Payload	额定负载 Rated load	5KG
	最大负载 Max load	10KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.03kg · ㎡
	最大 Max	0.3kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.015mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.4s
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±150°
	第3关节 J3 Axis	200mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	336° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1133mm/s
	第4关节 J4 Axis	2286° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		1.55KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		22KG

运动空间及外形安装尺寸图

Motion range and installation dimension drawing



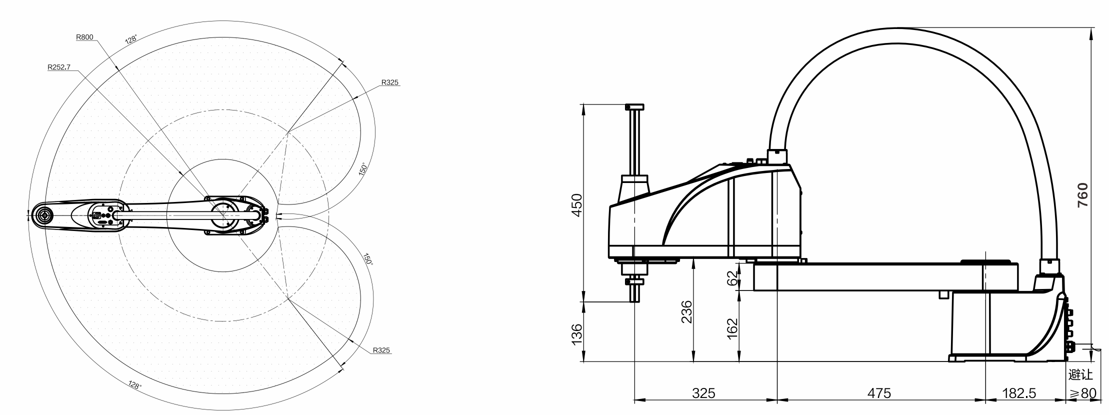


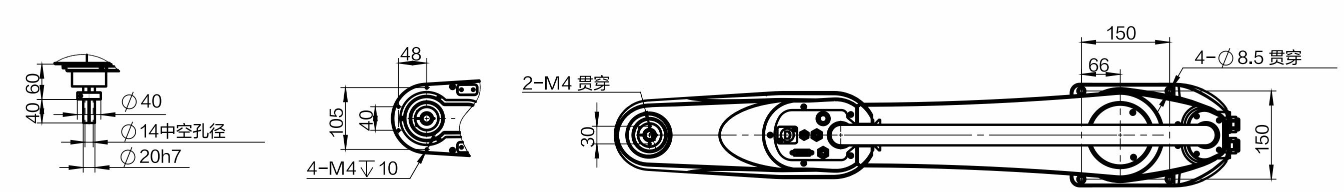
拓星辰 TRH005-800-200

产品型号 ROBOT MODEL		TRH005-800-200
臂展 Arm Stroke	第1-2关节 1-2 Axis	800mm
Z轴行程 Z axis Stroke		200mm
负载 Payload	额定负载 Rated load	5KG
	最大负载 Max load	10KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.03kg · ㎡
	最大 Max	0.3kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.02mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.43s
运动范围 Movement range	第1关节 J1 Axis	±128°
	第2关节 J2 Axis	±150°
	第3关节 J3 Axis	200mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	300° /s
	第2关节 J2 Axis	720° /s
	第3关节 J3 Axis	1133mm/s
	第4关节 J4 Axis	2286° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		1.55KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		25KG

运动空间及外形安装尺寸图

Motion range and installation dimension drawing



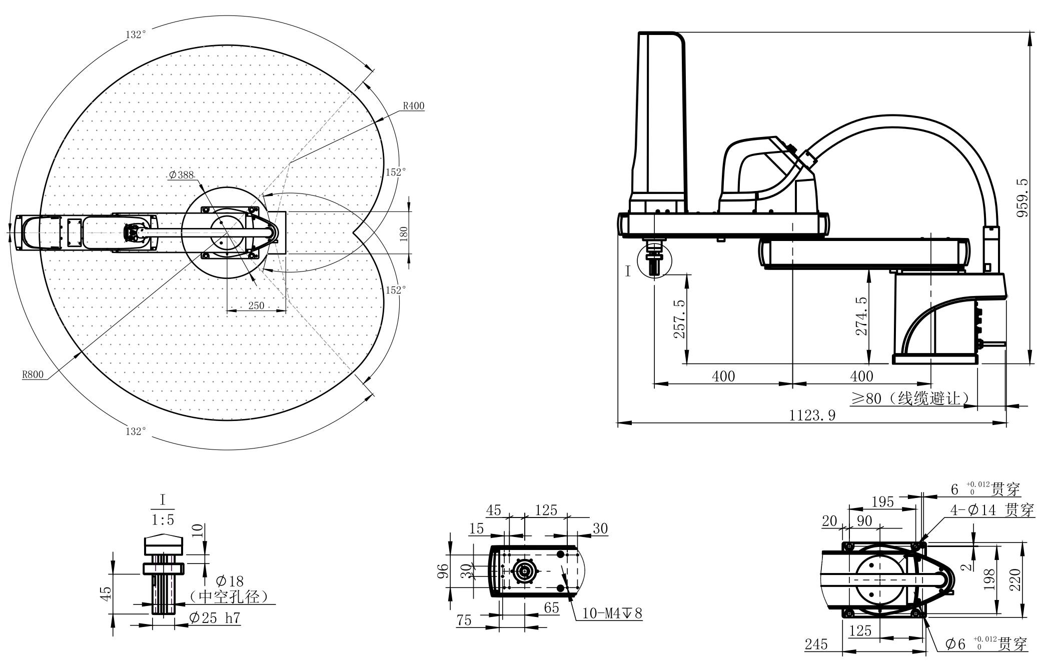


拓星辰 TRH010-800-400-S

产品型号 ROBOT MODEL		TRH010-800-400-S
臂展 Arm Stroke	第1-2关节 1-2 Axis	800mm
Z轴行程 Z axis Stroke		400mm
负载 Payload	额定负载 Rated load	10KG
	最大负载 Max load	20KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.1kg · m²
	最大 Max	0.5kg · m²
重复定位精度 Repeat Positioning Accuracy		±0.025mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.39s（10Kg）
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±152°
	第3关节 J3 Axis	400mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	360° /s
	第2关节 J2 Axis	450° /s
	第3关节 J3 Axis	1800mm/s
	第4关节 J4 Axis	1625° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	AC220V±10%、50Hz±1%	
功率 Power		2.2KW
机械臂防护等级 Arm protection level		IP20/IP54可选
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		49KG

运动空间及外形安装尺寸图

Motion range and installation dimension drawing

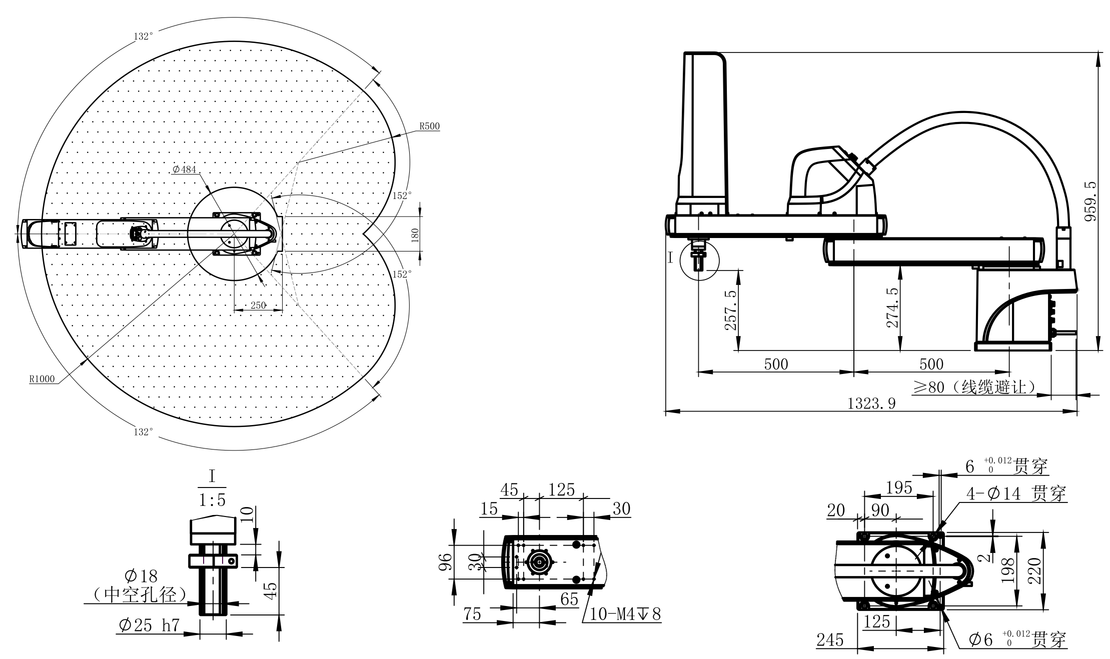


拓星辰 TRH010-1000-400-S

产品型号 ROBOT MODEL		TRH010-1000-400-S
臂展 Arm Stroke	第1-2关节 1-2 Axis	1000mm
Z轴行程 Z axis Stroke		400mm
负载 Payload	额定负载 Rated load	10KG
	最大负载 Max load	20KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.1kg · m²
	最大 Max	0.5kg · m²
重复定位精度 Repeat Positioning Accuracy		±0.025mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.4s（10Kg）
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±152°
	第3关节 J3 Axis	400mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	360° /s
	第2关节 J2 Axis	450° /s
	第3关节 J3 Axis	1800mm/s
	第4关节 J4 Axis	1625° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	AC220V±10%、50Hz±1%	
功率 Power		2.2KW
机械臂防护等级 Arm protection level		IP20/IP54可选
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		51KG

运动空间及外形安装尺寸图

Motion range and installation dimension drawing



拓星辰 TRH010-800-400-H

产品型号 ROBOT MODEL		TRH010-800-400-H
臂展 Arm Stroke	第1-2关节 1-2 Axis	800mm
Z轴行程 Z axis Stroke		400mm
负载 Payload	额定负载 Rated load	10KG
	最大负载 Max load	20KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.5kg · m²
	最大 Max	1.5kg · m²
重复定位精度 Repeat Positioning Accuracy		±0.025mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.42s（10Kg）
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±152°
	第3关节 J3 Axis	400mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	360° /s
	第2关节 J2 Axis	450° /s
	第3关节 J3 Axis	1800mm/s
	第4关节 J4 Axis	780° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	AC220V±10%、50Hz±1%	
功率 Power		2.4KW
机械臂防护等级 Arm protection level		IP20/IP54可选
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		51KG

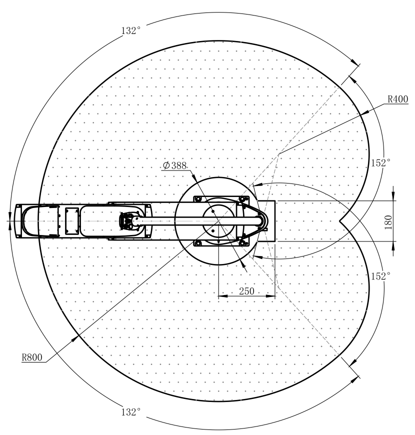
±0.025mm 重复定位精度 Repeat Positioning Accuracy

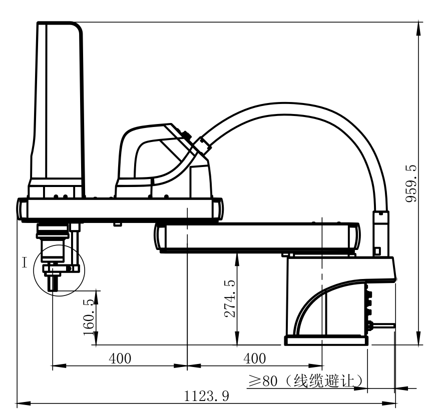
10KG/20KG 额定/最大负载 Rated load Max load

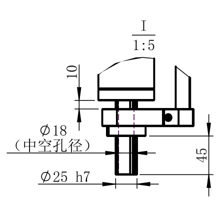
0.42s 标准循环时间 Standard Cycle Time

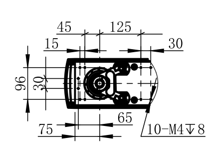
800mm 臂展 Arm Stroke

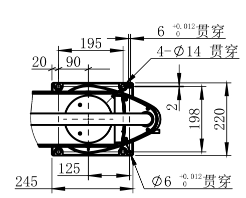
运动空间及外形安装尺寸图
Motion range and installation dimension drawing











拓星辰 TRH010-1000-400-H

产品型号 ROBOT MODEL		TRH010-1000-400-H
臂展 Arm Stroke	第1-2关节 1-2 Axis	1000mm
Z轴行程 Z axis Stroke		400mm
负载 Payload	额定负载 Rated load	10KG
	最大负载 Max load	20KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.5kg · m²
	最大 Max	1.5kg · m²
重复定位精度 Repeat Positioning Accuracy		±0.025mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.43s（10Kg）
运动范围 Movement range	第1关节 J1 Axis	±132°
	第2关节 J2 Axis	±152°
	第3关节 J3 Axis	400mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	360° /s
	第2关节 J2 Axis	450° /s
	第3关节 J3 Axis	1800mm/s
	第4关节 J4 Axis	780° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	AC220V±10%、50Hz±1%	
功率 Power		2.4KW
机械臂防护等级 Arm protection level		IP20/IP54可选
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		53KG

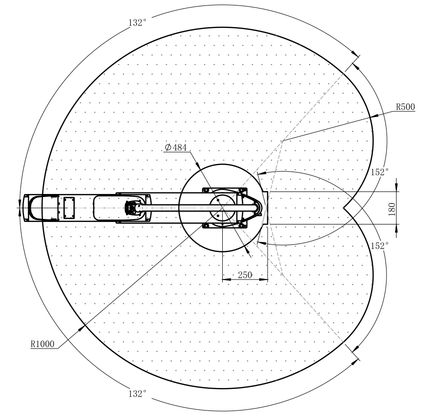
±0.025mm 重复定位精度 Repeat Positioning Accuracy

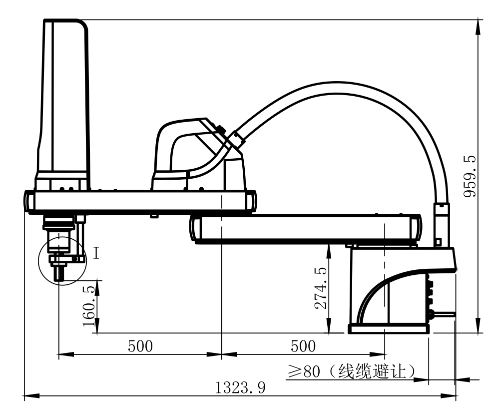
10KG/20KG 额定/最大负载 Rated load Max load

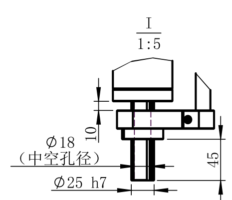
0.43s 标准循环时间 Standard Cycle Time

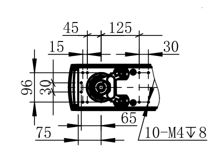
1000mm 臂展 Arm Stroke

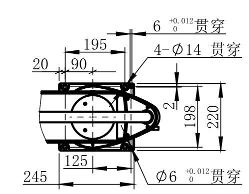
运动空间及外形安装尺寸图
Motion range and installation dimension drawing











拓星辰 TRH015-800-400

产品型号 ROBOT MODEL		TRH015-800-400
臂展 Arm Stroke	第1-2关节 1-2 Axis	800mm
Z轴行程 Z axis Stroke		400mm
负载 Payload	额定负载 Rated load	15KG
	最大负载 Max load	25KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.5kg · ㎡
	最大 Max	1.5kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.025mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.48s (15kg)
运动范围 Movement range	第1关节 J1 Axis	±134°
	第2关节 J2 Axis	±152°
	第3关节 J3 Axis	400mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	360° /s
	第2关节 J2 Axis	450° /s
	第3关节 J3 Axis	2257mm/s
	第4关节 J4 Axis	765° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		2.35KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		55KG

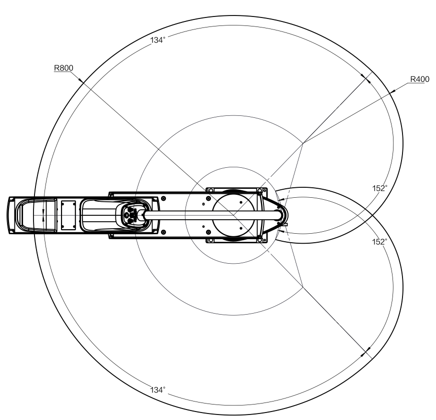
±0.025mm
重复定位精度
Repeat Positioning Accuracy

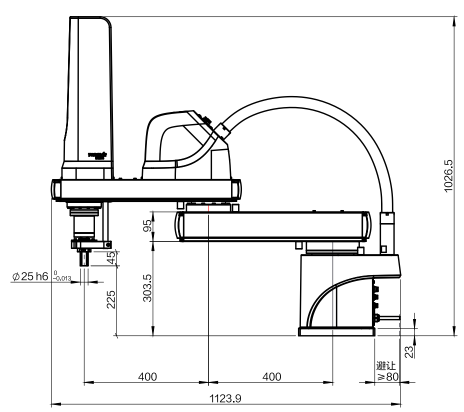
15KG-25KG
额定/最大负载
Rated load
Max load

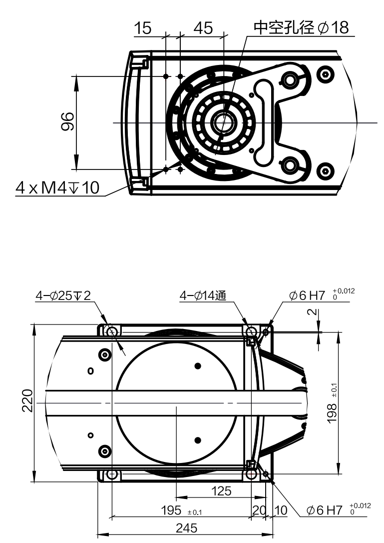
0.48s
标准循环时间
Standard Cycle Time

800mm
臂展
Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing







拓星辰 TRH015-1000-400

产品型号 ROBOT MODEL		TRH015-1000-400
臂展 Arm Stroke	第1-2关节 1-2 Axis	1000mm
Z轴行程 Z axis Stroke		400mm
负载 Payload	额定负载 Rated load	15KG
	最大负载 Max load	25KG
J4惯性力矩 J4 moment of inertia	额定 Rated	0.5kg · ㎡
	最大 Max	1.5kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.025mm
标准循环时间(额定负载) Standard Cycle Time (rated load)		0.48s (15kg)
运动范围 Movement range	第1关节 J1 Axis	±134°
	第2关节 J2 Axis	±152°
	第3关节 J3 Axis	400mm
	第4关节 J4 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	300° /s
	第2关节 J2 Axis	450° /s
	第3关节 J3 Axis	2257mm/s
	第4关节 J4 Axis	765° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		2.35KW
机械臂防护等级 Arm protection level		IP20
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		58KG

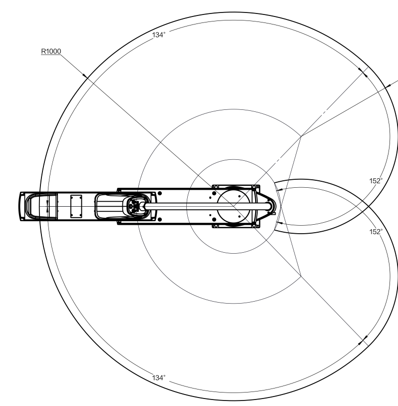
±0.025mm
重复定位精度
Repeat Positioning Accuracy

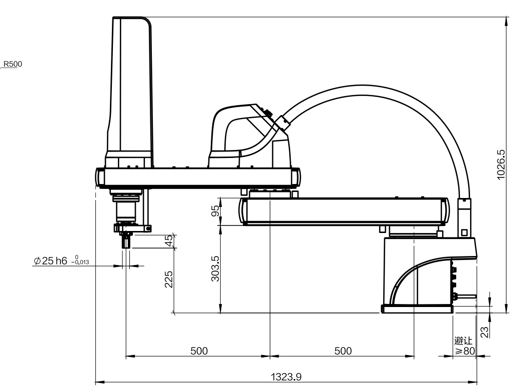
15KG-25KG
额定/最大负载
Rated load
Max load

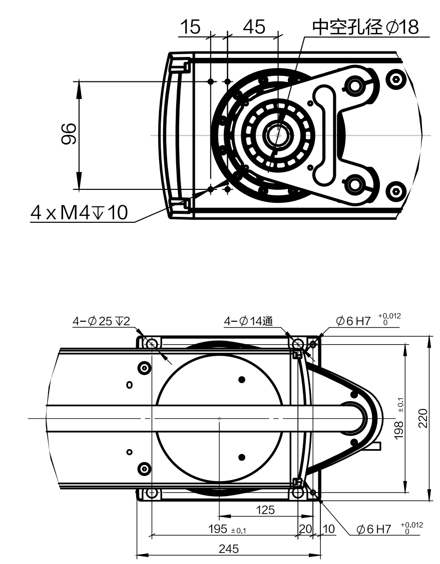
0.48s
标准循环时间
Standard Cycle Time

1000mm
臂展
Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing







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拓星云 TRV007-710

产品型号 ROBOT MODEL		拓星云 TRV007-710
臂展 Arm Stroke	第1-6关节 1-6 Axis	715mm
最大负载 Max load		7KG
J4，J5轴允许负载力矩/转动惯量 J4,J5 Moment/Inertia		16Nm/0.45kg · ㎡
J6轴允许负载力矩/转动惯量 J6 Moment/Inertia		9Nm/0.14kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.02mm
运动范围 Movement range	第1关节 J1 Axis	-170° ~+170°
	第2关节 J2 Axis	-98° ~+145°
	第3关节 J3 Axis	-200° ~+70°
	第4关节 J4 Axis	-190° ~+190°
	第5关节 J5 Axis	-125° ~+125°
	第6关节 J6 Axis	-360° ~+360°
最大运动速度 Max movement speed	第1关节 J1 Axis	383° /s
	第2关节 J2 Axis	355° /s
	第3关节 J3 Axis	420° /s
	第4关节 J4 Axis	450° /s
	第5关节 J5 Axis	450° /s
	第6关节 J6 Axis	768.5° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		1KW
机械臂防护等级 Arm protection level		IP40/IP67可选
控制柜防护等级 Control cabinet protection level		IP20/IP54可选
本体重量 Body weight		29KG
控制柜重量 Control cabinet weight		24KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		427×403×257

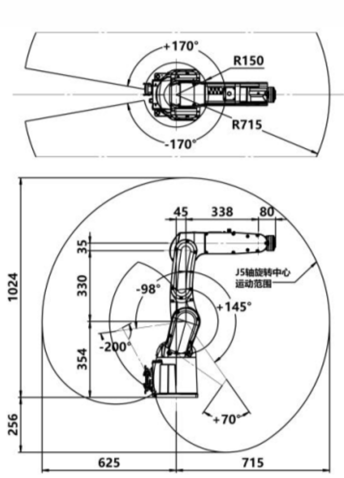
±0.02mm 重复定位精度 Repeat Positioning Accuracy

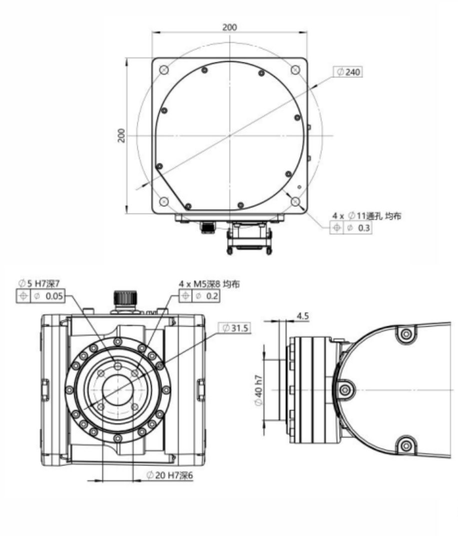
7KG 最大负载 Max load

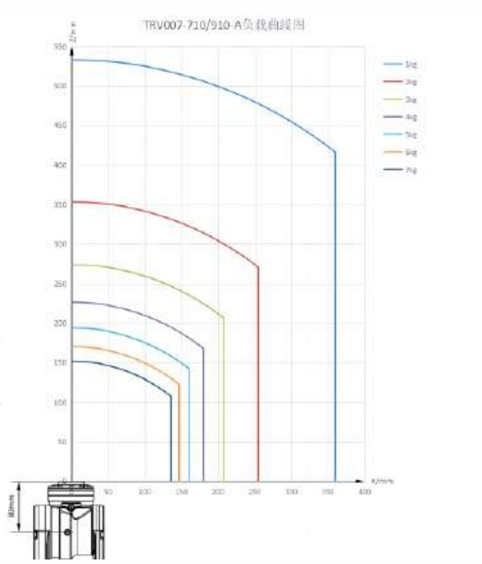
715mm 臂展 Arm Stroke

运动空间及外形安装尺寸图

Motion range and installation dimension drawing







拓星云 TRV007-910

产品型号 ROBOT MODEL		拓星云 TRV007-910
臂展 Arm Stroke	第1-6关节 1-6 Axis	912mm
最大负载 Max load		7KG
J4，J5轴允许负载力矩/转动惯量 J4,J5 Moment/Inertia		16Nm/0.45kg · ㎡
J6轴允许负载力矩/转动惯量 J6 Moment		9Nm/0.14kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.03mm
运动范围 Movement range	第1关节 J1 Axis	-170° ~+170°
	第2关节 J2 Axis	-100° ~+140°
	第3关节 J3 Axis	-210° ~+70°
	第4关节 J4 Axis	-190° ~+190°
	第5关节 J5 Axis	-125° ~+125°
	第6关节 J6 Axis	-360° ~+360°
最大运动速度 Max movement speed	第1关节 J1 Axis	307° /s
	第2关节 J2 Axis	297.5° /s
	第3关节 J3 Axis	336° /s
	第4关节 J4 Axis	450° /s
	第5关节 J5 Axis	450° /s
	第6关节 J6 Axis	768.5° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		1KW
机械臂防护等级 Arm protection level		IP40/IP67可选
控制柜防护等级 Control cabinet protection level		IP20/IP54可选
本体重量 Body weight		31KG
控制柜重量 Control cabinet weight		24KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		427×403×257

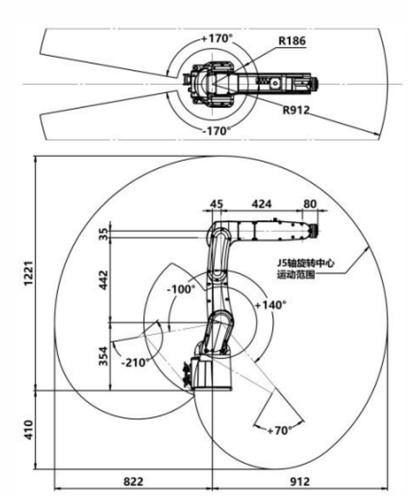
±0.03mm 重复定位精度 Repeat Positioning Accuracy

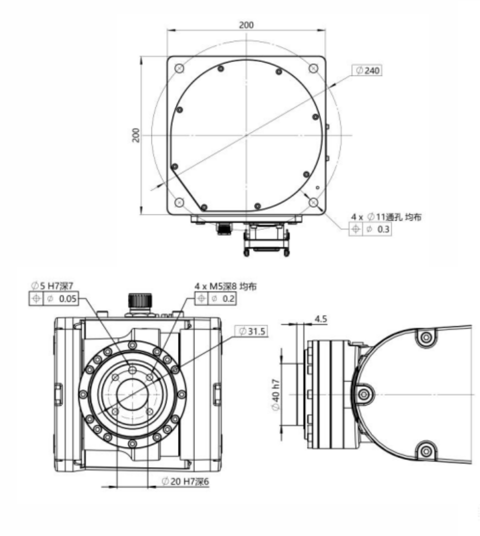
7KG 最大负载 Max load

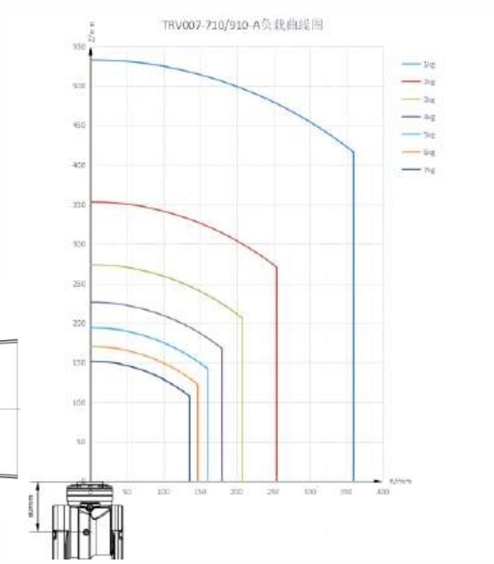
912mm 臂展 Arm Stroke

运动空间及外形安装尺寸图

Motion range and installation dimension drawing







拓星际 R091-10-S

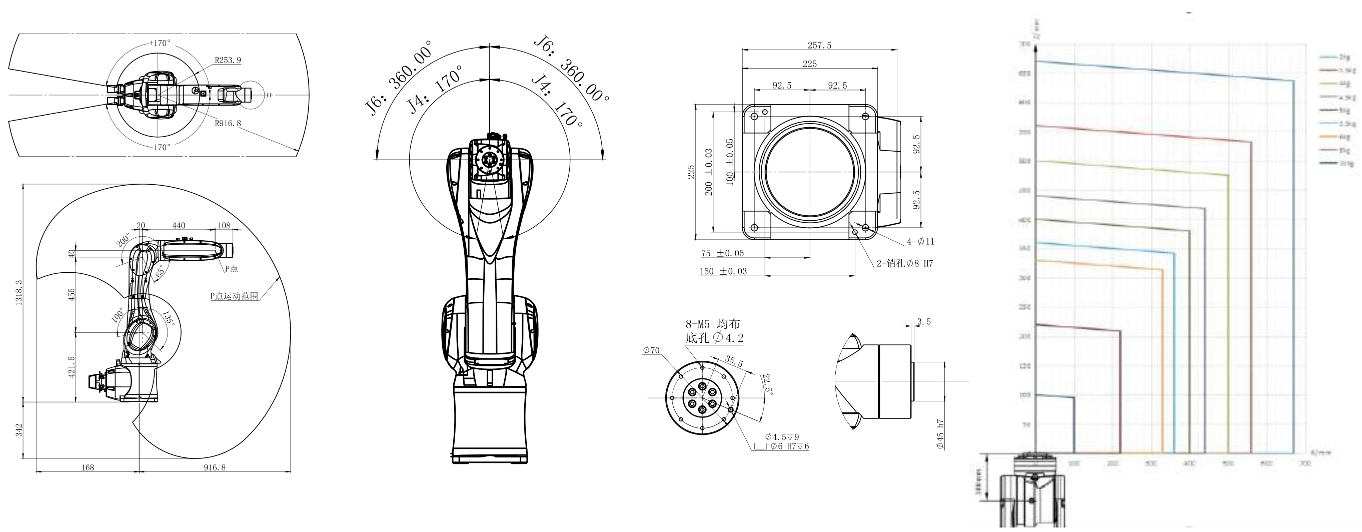
产品型号 ROBOT MODEL		拓星际 R091-10-S
臂展 Arm Stroke	第1-6关节 1-6 Axis	915mm
最大负载 Max load		10KG
J4，J5轴允许负载力矩/转动惯量 J4,J5 Moment/Inertia		12Nm/0.35 kg · ㎡ 10Nm/0.3 kg · ㎡
J6轴允许负载力矩/转动惯量 J6 Moment/Inertia		6Nm/0.1 kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.03mm
运动范围 Movement range	第1关节 J1 Axis	±170°
	第2关节 J2 Axis	-100° ～+135°
	第3关节 J3 Axis	-200° ～+65°
	第4关节 J4 Axis	±170°
	第5关节 J5 Axis	±120°
	第6关节 J6 Axis	±360°
最大运动速度 Max movement speed	第1关节 J1 Axis	337.5° /s
	第2关节 J2 Axis	270° /s
	第3关节 J3 Axis	375° /s
	第4关节 J4 Axis	300° /s
	第5关节 J5 Axis	375° /s
	第6关节 J6 Axis	468° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相220VAC 50Hz	
功率 Power		2.2KW
机械臂防护等级 Arm protection level		IP54
控制柜防护等级 Control cabinet protection level		IP20
本体重量 Body weight		60KG
控制柜重量 Control cabinet weight		24KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		427×403×257

±0.03mm 重复定位精度 Repeat Positioning Accuracy

10KG 最大负载 Max load

915mm 臂展 Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing



拓星际 R140-10-S

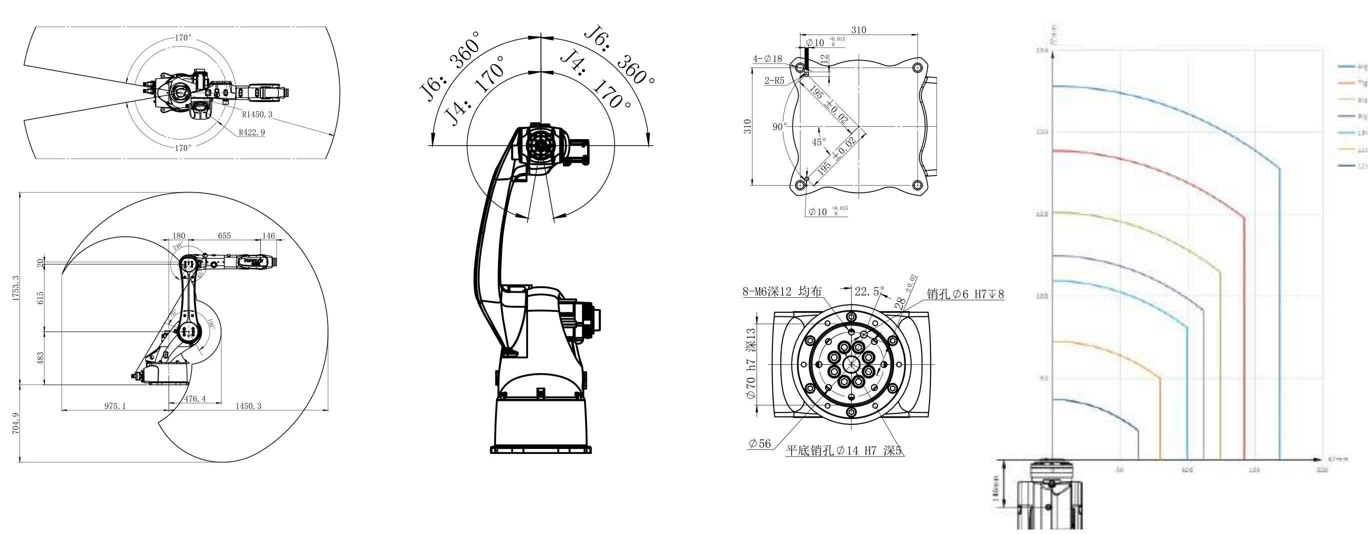
产品型号 ROBOT MODEL		拓星际 R140-10-S
臂展 Arm Stroke	第1-6关节 1-6 Axis	1450mm
最大负载 Max load		12KG
J4，J5轴允许负载力矩/转动惯量 J4,J5 Moment/Inertia		29Nm/0.6kg · ㎡
J6轴允许负载力矩/转动惯量 J6 Moment/Inertia		24Nm/0.58kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.05mm
运动范围 Movement range	第1关节 J1 Axis	-170° ～+170°
	第2关节 J2 Axis	-70° ～+150°
	第3关节 J3 Axis	-240° ～+65°
	第4关节 J4 Axis	-170° ～+170°
	第5关节 J5 Axis	-125° ～+125°
	第6关节 J6 Axis	-360° ～+360°
最大运动速度 Max movement speed	第1关节 J1 Axis	220° /s
	第2关节 J2 Axis	220° /s
	第3关节 J3 Axis	220° /s
	第4关节 J4 Axis	375° /s
	第5关节 J5 Axis	375° /s
	第6关节 J6 Axis	450° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	单相 220V±10%，50Hz	
功率 Power		4.7KW
机械臂防护等级 Arm protection level		IP65
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		190KG
控制柜重量 Control cabinet weight		60KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		500×430×650

±0.05mm 重复定位精度 Repeat Positioning Accuracy

12KG 最大负载 Max load

1450mm 臂展 Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing



拓星际 RI84-20-M

产品型号 ROBOT MODEL		拓星际 R184-20-M
臂展 Arm Stroke	第1-6关节 1-6 Axis	1840mm
最大负载 Max load		20KG
J4，J5轴允许负载力矩/转动惯量 J4,J5 Moment/Inertia		103.5 Nm/3.4 kg · ㎡ 101.6Nm/3.2 kg · ㎡
J6轴允许负载力矩/转动惯量 J6 Moment/Inertia		63.5Nm/1.8 kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.05mm
运动范围 Movement range	第1关节 J1 Axis	-167° ~+167°
	第2关节 J2 Axis	-100° ~+150°
	第3关节 J3 Axis	-118° ~+85°
	第4关节 J4 Axis	-190° ~+190°
	第5关节 J5 Axis	-115° ~+115°
	第6关节 J6 Axis	-360° ~+360°
最大运动速度 Max movement speed	第1关节 J1 Axis	167° /s
	第2关节 J2 Axis	167° /s
	第3关节 J3 Axis	190° /s
	第4关节 J4 Axis	370° /s
	第5关节 J5 Axis	370° /s
	第6关节 J6 Axis	375° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	三相380VAC 50Hz	
功率 Power		10KW
机械臂防护等级 Arm protection level		IP65
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		260KG
控制柜重量 Control cabinet weight		80KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		650×430×650

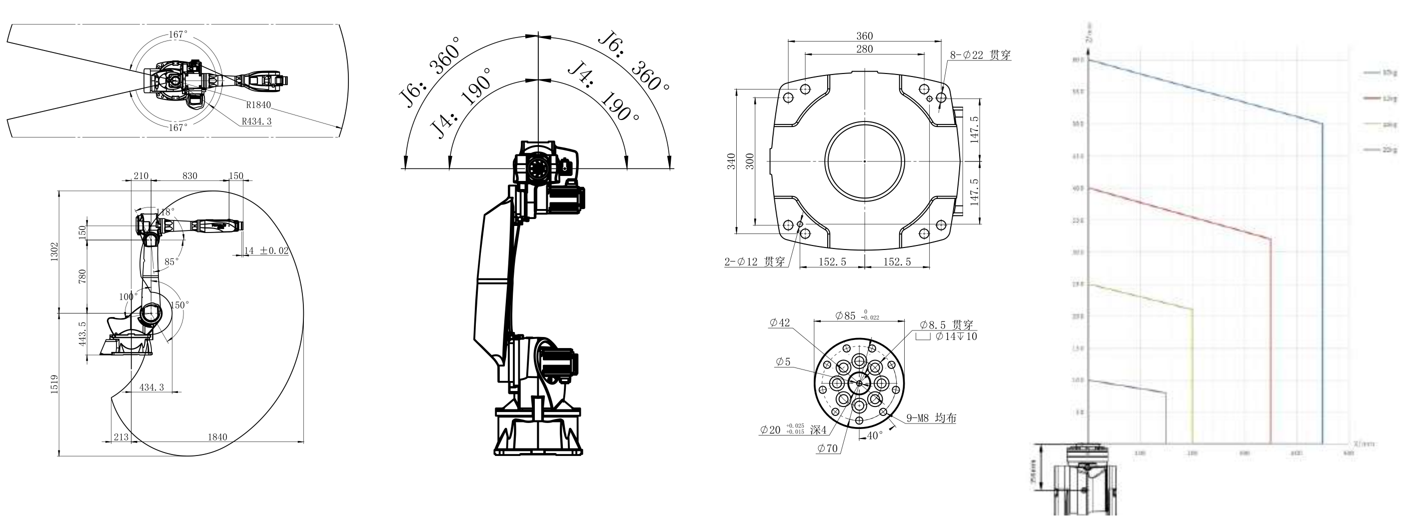
±0.05mm 重复定位精度 Repeat Positioning Accuracy

20KG 最大负载 Max load

1840mm 臂展 Arm Stroke

运动空间及外形安装尺寸图

Motion range and installation dimension drawing



拓星际 RI81-35-G

产品型号 ROBOT MODEL		拓星际 R181-35-G
臂展 Arm Stroke	第1-6关节 1-6 Axis	1813mm
最大负载 Max load		35KG
J4，J5轴允许负载力矩/转动惯量 J4,J5 Moment/Inertia		115Nm/4.4kg · ㎡
J6轴允许负载力矩/转动惯量 J6 Moment/Inertia		65Nm/1.6kg · ㎡
重复定位精度 Repeat Positioning Accuracy		±0.07mm
运动范围 Movement range	第1关节 J1 Axis	-178° ~+178°
	第2关节 J2 Axis	-98° ~+158°
	第3关节 J3 Axis	-178° ~+78°
	第4关节 J4 Axis	-400° ~+400°
	第5关节 J5 Axis	-120° ~+120°
	第6关节 J6 Axis	-500° ~+500°
最大运动速度 Max movement speed	第1关节 J1 Axis	200° /s
	第2关节 J2 Axis	175° /s
	第3关节 J3 Axis	190° /s
	第4关节 J4 Axis	480° /s
	第5关节 J5 Axis	415° /s
	第6关节 J6 Axis	630° /s
标配IO数量 Standard IO quantity		16DI/16DO(NPN)
电压 Voltage	三相 380V，50Hz	
功率 Power		9.05KW
机械臂防护等级 Arm protection level		IP65
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		260KG
控制柜重量 Control cabinet weight		100KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		666×634×936

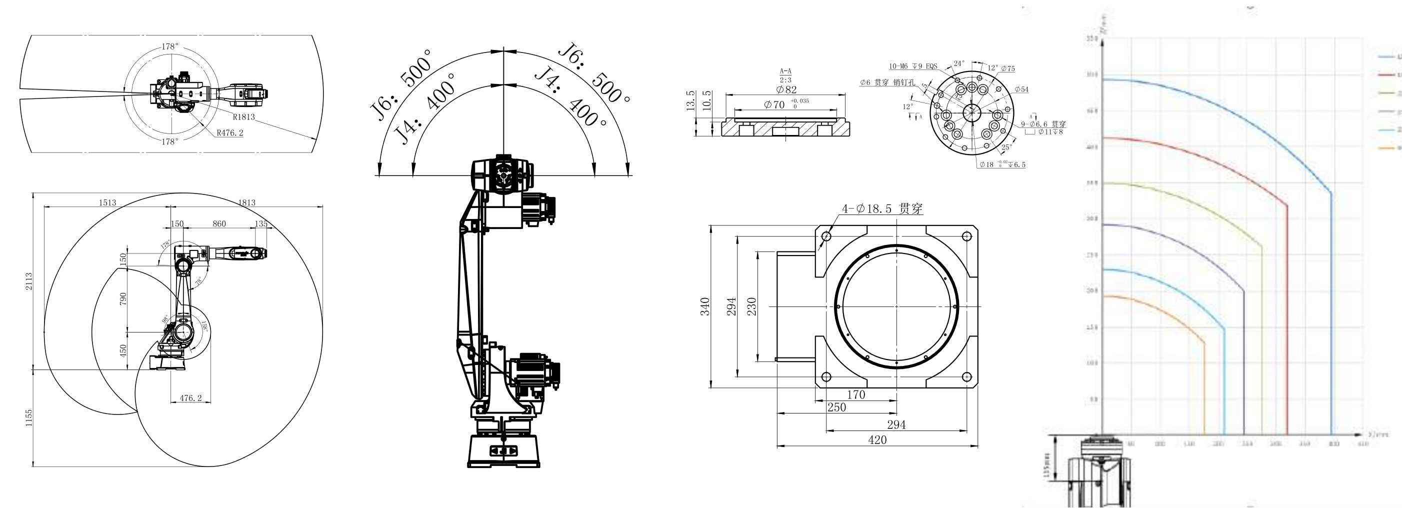
±0.07mm 重复定位精度 Repeat Positioning Accuracy

35KG 最大负载 Max load

1813mm 臂展 Arm Stroke

运动空间及外形安装尺寸图

Motion range and installation dimension drawing



并联多关节系列 | PARALLEL MULTI-JOINT SERIES

拓星际 P060J-03-H

产品型号 ROBOT MODEL		拓星际 P060J-03-H
臂展 Arm Stroke	3+1轴 Axis	600*200mm
额定负载 Rated load		2KG
最大负载 Max load		3KG
J4轴允许负载转动惯量 J4 Allowable Inertia Moment		0.0032kg · ㎡
标准循环时间(s) Standard Cycle Time		0.4 秒/节拍 (25/305/25(mm))
重复定位精度 Repeat Positioning Accuracy	XYZ(mm)	±0.05mm
角度定位精度 Angle Positioning Accuracy	R(°)	0.05°
旋转轴(°) Rotation Axis (°)		±360°
标配IO数量 Standard IO quantity		12DI/16DO(NPN)
电压 Voltage		单相 220V±10%，50Hz
功率 Power		2.5KW
机械臂防护等级 Arm protection level		IP54
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		40KG
控制柜重量 Control cabinet weight		28KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		504×460×302

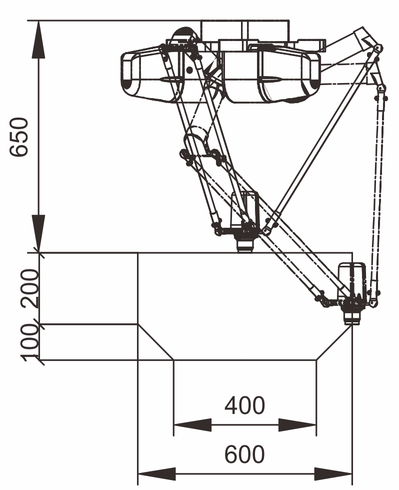
±0.05mm 重复定位精度 Repeat Positioning Accuracy

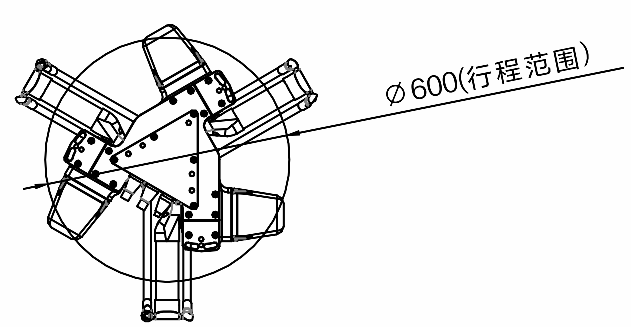
2KG/3KG 额定/最大负载 Rated load Max load

0.4s 标准循环时间 Standard Cycle Time

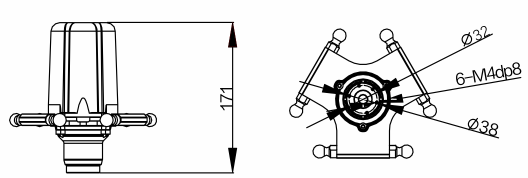
600x200mm 臂展 Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing

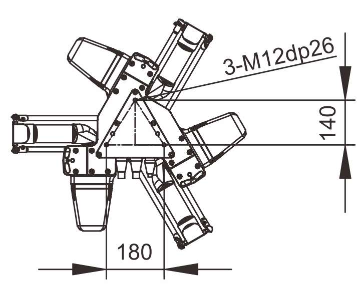




01：末端法兰



02：安装基座



拓星际 P080J-03-H

产品型号 ROBOT MODEL		拓星际 P080J-03-H
臂展 Arm Stroke	3+1轴 Axis	800*180mm
额定负载 Rated load		2KG
最大负载 Max load		3KG
J4轴允许负载转动惯量 J4 Allowable Inertia Moment		0.0032kg · ㎡
标准循环时间(s) Standard Cycle Time		0.4 秒/节拍 (25/305/25(mm))
重复定位精度 Repeat Positioning Accuracy	XYZ(mm)	±0.05mm
角度定位精度 Angle Positioning Accuracy	R(°)	0.05°
旋转轴(°) Rotation Axis (°)		±360°
标配IO数量 Standard IO quantity		12DI/16DO(NPN)
电压 Voltage		单相 220V±10%，50Hz
功率 Power		2.5KW
机械臂防护等级 Arm protection level		IP54
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		40KG
控制柜重量 Control cabinet weight		28KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		504×460×302

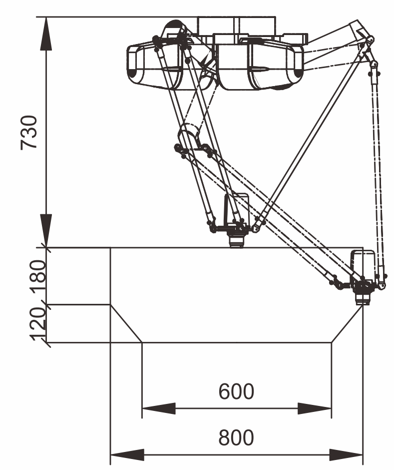
±0.05mm 重复定位精度 Repeat Positioning Accuracy

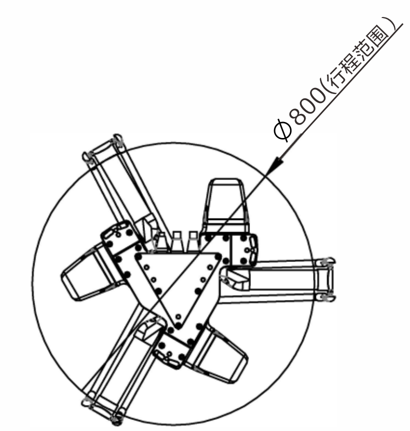
2KG/3KG 额定/最大负载 Rated load Max load

0.4s 标准循环时间 Standard Cycle Time

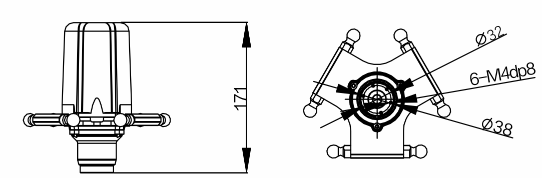
800x180mm 臂展 Arm Stroke

运动空间及外形安装尺寸图
Motion range and installation dimension drawing

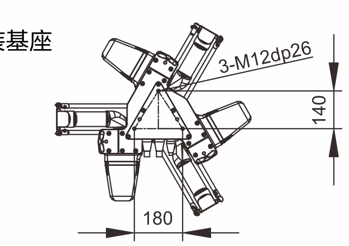




01：末端法兰



02：安装基座



拓星际 P100J-03-H

产品型号 ROBOT MODEL		拓星际 P100J-03-H
臂展 Arm Stroke	3+1轴 Axis	1000*160mm
额定负载 Rated load		2KG
最大负载 Max load		3KG
J4轴允许负载转动惯量 J4 Allowable Inertia Moment		0.0032kg · ㎡
标准循环时间(s) Standard Cycle Time		0.4 秒/节拍（25/305/25(mm)）
重复定位精度 Repeat Positioning Accuracy	XYZ(mm)	±0.05mm
角度定位精度 Angle Positioning Accuracy	R(°)	0.05°
旋转轴(°) Rotation Axis (°)		±360°
标配IO数量 Standard IO quantity		12DI/16DO(NPN)
电压 Voltage		单相 220V±10%，50Hz
功率 Power		2.5KW
机械臂防护等级 Arm protection level		IP54
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		40KG
控制柜重量 Control cabinet weight		28KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		504×460×302

±0.05mm 重复定位精度 Repeat Positioning Accuracy

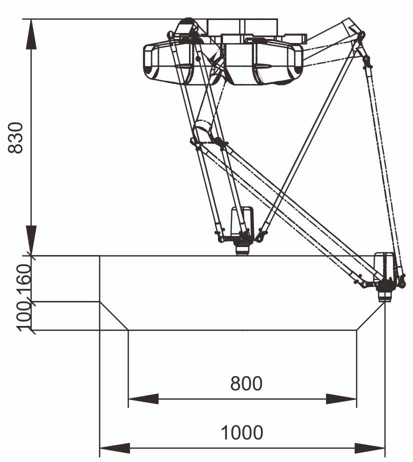
2KG/3KG 额定/最大负载 Rated load Max load

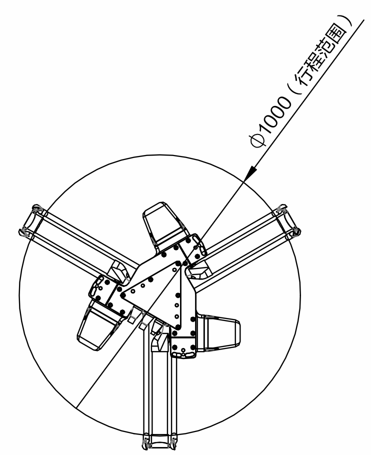
0.4s 标准循环时间 Standard Cycle Time

1000x160mm 臂展 Arm Stroke

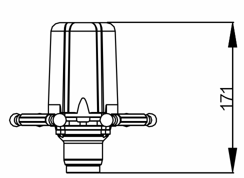
运动空间及外形安装尺寸图

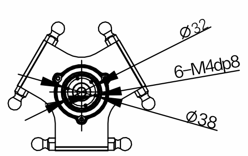
Motion range and installation dimension drawing



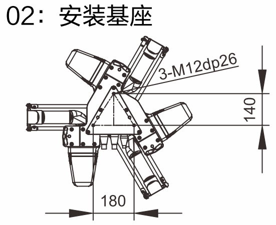


01：末端法兰





02：安装基座



拓星际 P120J-03-H

产品型号 ROBOT MODEL		拓星际 P120J-03-H
臂展 Arm Stroke	3+1轴 Axis	1200*250mm
额定负载 Rated load		2KG
最大负载 Max load		3KG
J4轴允许负载转动惯量 J4 Allowable Inertia Moment		0.0032kg · ㎡
标准循环时间(s) Standard Cycle Time		0.4 秒/节拍（25/305/25(mm)）
重复定位精度 Repeat Positioning Accuracy	XYZ(mm)	±0.05mm
角度定位精度 Angle Positioning Accuracy	R(°)	0.05°
旋转轴(°) Rotation Axis (°)		±360°
标配IO数量 Standard IO quantity		12DI/16DO(NPN)
电压 Voltage		单相 220V±10%，50Hz
功率 Power		2.5KW
机械臂防护等级 Arm protection level		IP54
控制柜防护等级 Control cabinet protection level		IP54
本体重量 Body weight		72KG
控制柜重量 Control cabinet weight		28KG
控制柜尺寸(长*宽*高)mm Control cabinet size (L*W*H)mm		504×460×302

±0.05mm 重复定位精度 Repeat Positioning Accuracy

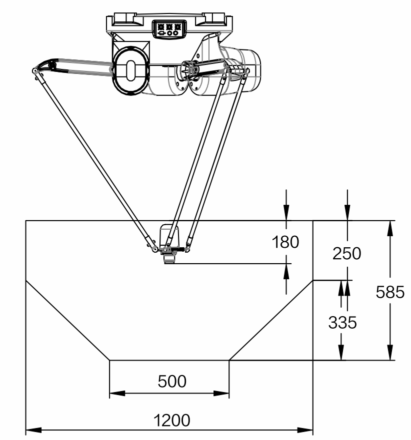
2KG/3KG 额定/最大负载 Rated load Max load

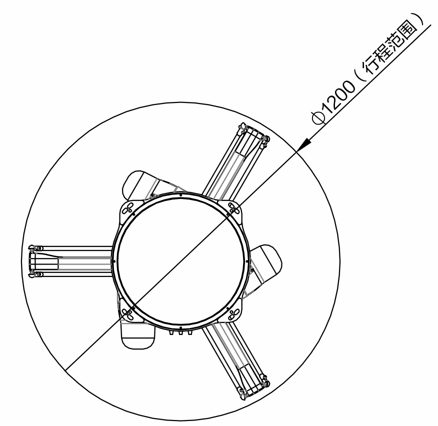
0.4s 标准循环时间 Standard Cycle Time

1200x250mm 臂展 Arm Stroke

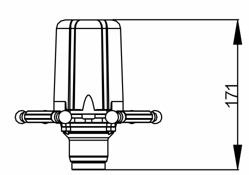
运动空间及外形安装尺寸图

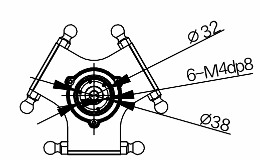
Motion range and installation dimension drawing



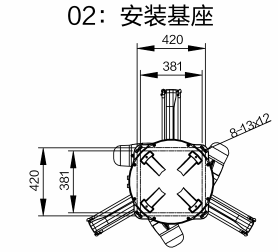


01：末端法兰





02：安装基座



FOUR AXIS ROBOT CONTROL CABINET

四轴机器人控制柜

四轴机器人控制柜电气接口介绍

Introduction to electrical interface of four axis robot control cabinet

1、高可靠性和高安全性 High reliability and safety

控制器平台集运动控制、PLC控制和网络化控制于一体，硬件采用多CPU架构，并内嵌毫秒级响应的安全电气回路，进而实现高可靠性和高安全性；

The controller platform integrates motion control, PLC control and networked control. The hardware adopts a multi CPU architecture and embeds a millisecond response safety electrical circuit to achieve high reliability and safety;

2、高速高精 High speed and high precision

控制器平台采用高精度纳米插补算法和多类型误差补偿算法，并针对SCARA机器人应用特点开发了基于加速度自适应的门型轨迹控制技术，门型节拍极限可达0.25s；

The controller platform adopts the high-precision nano interpolation algorithm and multi-type error compensation algorithm. According to the application characteristics of the SCARA robot, an acceleration adaptive gate trajectory control technology is developed. The gate beat limit can reach 0.25s;

3、高易用性 High ease of use

控制器平台采用基于作业系列的编程方式，并可根据客户需求定制中文编程指令和工艺应用界面，且内部集成了智能抓取、智能码垛、视觉跟踪、多机协同，以及安全协作等行业应用工艺包。

The controller platform adopts the programming method based on the operation series, and can customize the Chinese programming instructions and process application interface according to the customer's needs, and internally integrates the industrial application process packages such as intelligent capture, intelligent palletizing, visual tracking, multi machine collaboration, and security collaboration.

基本配置参数

Basic configuration parameters

名称 NAME	TRC04-040-11-02机器人控制柜 TRC04-040-11-02 ROBOT CONTROL CABINET	
可搭配机器人 Robot which can be used	支持适配Delta、SCARA、四轴搬运等各种结构的机器人 Support robots with Delta, SCARA, four axis handling and other structures	
外部通信 External communication	硬件通讯接口 Hardware communication interface	以太网接口（LAN0）,EtherCAT接口、R485接口 Ethernet interface（LAN0）,EtherCAT interface, R485 interface
	标配通讯协议 Standard communication protocol	Modbus-TCP（从站）、Modbus-RTU（从站）、TCP/IP自由协议、EtherCAT（主站） Modbus-TCP（slave station）、Modbus-RTU（slave station）、TCP/IP free protocol、EtherCAT（Master station）
	选配通讯协议 Optional communication protocol	EtherNet/IP（从站）、Profinet（从站） EtherNet/IP（slave station）、Profinet（slave station）
	IO输入 IO INPUT	16路数字量输入，或12路数字量输入和2路正交编码或脉冲计数，NPN型 16 channels of digital input, or 12 channels of digital input and 2 channels of orthogonal coding or pulse counting, NPN type
	IO输出 IO OUTPUT	16路数字量输出，最大支持电流300mA，NPN 16 channels digital output, maximum supporting current 300mA, NPN
	急停 Emergency stop	2路急停输入，2路急停输出 2 channels emergency stop input and 2 channels emergency stop output
运动控制 Movement control	联动插补 Linkage interpolation	支持最大八轴的联动插补，最大支持两个附加轴控制 Support the linkage interpolation of up to eight axes, and support the control of up to two additional axes
	高精度控制 High precision control	支持高精度纳米插补，多种类的误差补偿技术，基于动力学的前馈功能 Support high-precision nano interpolation, various error compensation technologies, and feed forward function based on Dynamics
	运动方式 Movement mode	支持点到点、直线、圆弧、平滑过渡、拱形、样条曲线、S型加减速 Support point-to-point, line, arc, smooth transition, arch, spline, S-type acceleration and deceleration
	编程方式 Programming mode	支持LUA代码和G代码的混合编程，后台内嵌符合IEC61131-3标准的软PLC模块 Support mixed programming of lua code and G code, and embed soft PLC module conforming to IEC61131-3 standard in the background
扩展功能 Extended functions	工艺功能 Process function	支持工作区域、复杂码垛、机器视觉、传送带跟踪、传送带多机协同、注塑交互、冲压联机、智能分拣等工艺功能 Support process functions such as work area, complex palletizing, machine vision, conveyor belt tracking, conveyor belt multi machine collaboration, injection molding interaction, stamping online, intelligent sorting, etc
	IO扩展 IO extension	提供EtherCAT扩展模块，包括数字量、模拟量、温度等 Provide EtherCAT expansion module, including digital quantity, analog quantity, temperature, etc
	二次开发 Secondary development	提供运动控制二次开发DLL库，应用于视觉集成 Provide motion control secondary development DLL library for visual integration

	外部存储支持 EXTERNAL STORAGE SUPPORT	U盘 U DISK
	急停方式 Emergency stop mode	软件急停/硬件急停 Software emergency stop/hardware emergency stop
基本参数 Basic parameters	体积 Volume	340x340x180(mm)
	重量 Weight	15kg
	电源线长 Power cord length	5m
	本体线长 Body cable length	5m
	电源规格 Power specifications	单相 Single-phase 220V±10%，50Hz
	最大功率 Maximum power consumption	4kW
	使用环境温度 Working environment temperature	0℃~50° C
	储存环境温度 Storage enviroment temperature	-30℃~70℃
	使用湿度 Service humidity	10%~85%RH 无凝雾 10%~85%rh non condensing fog
操作方式 Operation mode	示教器 Teach pendant	TSR600-7-0000-A
	PC软件 PC Software	TopTeach

示教器参数（选配）

Teach pendant parameters (optional)

品牌 BRAND	拓斯达 TOPSTAR	型号 MODEL	TSR600-7-0000-A	操作方式 OPERATION METHOD	按键+触摸 KEYS + TOUCH
线长 Line length	5m	线显示/分辨率 display /resolution ratio	8寸全彩显示 1024*768 8-inch full-color display 1024*768	特殊功能 Special function	支持热插拔 Support hot swap
规格尺寸 Standard sizes	288*195*85 (mm)2kg	通信 Communication	Ethernet、U盘（FAT32） Ethernet、Udisk（FAT32）	电源 Power	DC 24V(电柜供应) DC 24V(supplied by electric cabinet)

SIX AXIS ROBOT CONTROL CABINET

六轴机器人控制柜

六轴机器人控制柜电气接口介绍

Introduction to electrical interface of six axis robot control cabinet

示教器参数

Teach pendant parameters

品牌 BRAND	拓斯达 TOPSTAR	型号 MODEL	TSR600-7-0000	操作方式 OPERATION METHOD	按键+触摸 KEYS + TOUCH
线长 Line length	5m	线显示/分辨率 display /resolution ratio	8寸全彩显示 1024*768 8-inch full-color display 1024*768	特殊功能 Special function	支持热插拔 Support hot swap
规格尺寸 Standard sizes	288*195*85 (mm)2kg	通信 Communication	Ethernet、U盘（FAT32） Ethernet、Udisk（FAT32）	电源 Power	DC 24V(电柜供应) DC 24V(supplied by electric cabinet)

基本配置参数

Basic configuration parameters

名称 NAME	TRC06-021-11-01 六轴机器人控制柜 TRC06-021-11-01 SIX-AXIS ROBOT CONTROL CABINET	
适配机型 Adaptive model	支持适配通用六关节、协作等各种结构的机器人 Support all industrial robots with different structures such as universal six-axis robot, collaborative robot etc.	
外部通信 External communication	硬件通讯接口 Hardware communication interface	以太网接口（LAN0）,EtherCAT接口、R485接口 Ethernet interface（LAN0）,EtherCAT interface, R485 interface
	标配通讯协议 Standard communication protocol	Modbus-TCP（从站）、Modbus-RTU（从站）、TCP/IP自由协议、EtherCAT（主站） Modbus-TCP（slave station）、Modbus-RTU（slave station）、TCP/IP free protocol、EtherCAT（Master station）
	选配通讯协议 Optional communication protocol	EtherNet/IP（从站）、Profinet（从站） EtherNet/IP（slave station）、Profinet（slave station）
	IO输入 IO INPUT	16路数字量输入，或12路数字量输入和2路正交编码或脉冲计数，NPN型 16 channels of digital input, or 12 channels of digital input and 2 channels of orthogonal coding or pulse counting, NPN type
	IO输出 IO OUTPUT	16路数字量输出，最大支持电流300mA，NPN 16 channels digital output, maximum supporting current 300mA, NPN
	急停 Emergency stop	2路急停输入，2路急停输出 2 channels emergency stop input and 2 channels emergency stop output
运动控制 Movement control	联动插补 Linkage interpolation	支持最大八轴的联动插补，最大支持两个附加轴控制 Support the linkage interpolation of up to eight axes, and support the control of up to two additional axes
	高精度控制 High precision control	支持高精度纳米插补，多种类的误差补偿技术，基于动力学的前馈功能 Support high-precision nano interpolation, various error compensation technologies, and feed forward function based on Dynamics
	运动方式 Movement mode	支持点到点、直线、圆弧、平滑过渡、拱形、样条曲线、S型加减速 Support point-to-point, line, arc, smooth transition, arch, spline, S-type acceleration and deceleration
	编程方式 Programming mode	支持LUA代码和G代码的混合编程，后台内嵌符合IEC61131-3标准的软PLC模块 Support mixed programming of lua code and G code, and embed soft PLC module conforming to IEC61131-3 standard in the background
扩展功能 Extended functions	工艺功能 Process function	支持工作区域、复杂码垛、机器视觉、传送带跟踪、传送带多机协同、注塑交互、冲压联机、智能分拣等工艺功能 Support process functions such as work area, complex palletizing, machine vision, conveyor belt tracking, conveyor belt multi machine collaboration, injection molding interaction, stamping online, intelligent sorting, etc
	IO扩展 IO extension	提供EtherCAT扩展模块，包括数字量、模拟量、温度等 Provide EtherCAT expansion module, including digital quantity, analog quantity, temperature, etc
	二次开发 Secondary development	提供运动控制二次开发DLL库，应用于视觉集成 Provide motion control secondary development DLL library for visual integration

	外部存储支持 EXTERNAL STORAGE SUPPORT	U盘 U DISK
	急停方式 Emergency stop mode	软件急停/硬件急停 Software emergency stop/hardware emergency stop
基本参数 Basic parameters	体积 Volume	427x403x257(mm)
	重量 Weight	24kg
	电源线长 Power cord length	5m
	本体线长 Body cable length	5m
	电源规格 Power specifications	单相 Single-phase 220V±10%，50Hz
	最大功率 Maximum power consumption	2.1kW
	使用环境温度 Working environment temperature	0℃~50℃
	储存环境温度 Storage enviroment temperature	-30℃~70℃
	使用湿度 Service humidity	10%~85%RH 无凝雾 10%~85%rh non condensing fog
操作方式 Operation mode	示教器 Teach pendant	TSR600-7-0000-A
	PC软件 PC Software	TopTeach

TEACH PENDANT

示教器

示教器采用8英寸液晶屏，1024*768分辨率；基于Linux 操作系统，图形化的界面设计，对话框式的选项设定；支持触摸屏和实体功能按键操作，支持自定义功能键，配备急停开关、三段使能开关，支持标准以太网、U盘等接口，用户操作可靠且高效。

The teaching device adopts an 8-inch LCD screen with a resolution of 1024 * 768; Based on Linux operating system, graphical interface design, dialog box type option setting; Support touch screen and physical function key operation, equipped with emergency stop switch and three-stage enable switch, support standard Ethernet, U disk and other interfaces, and the user's operation is reliable and efficient.

特点

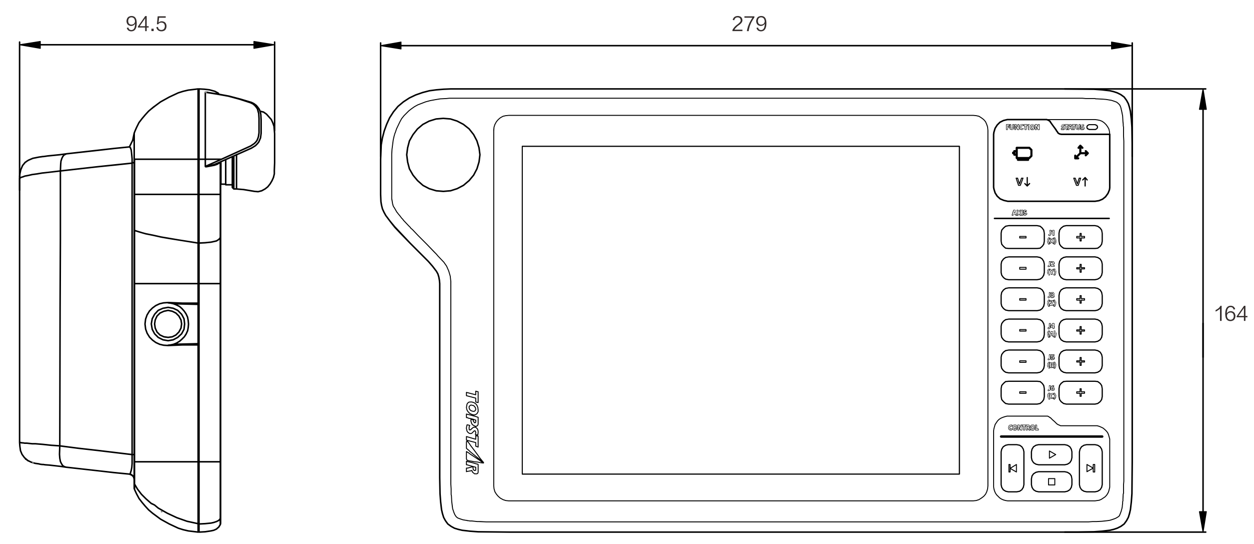
Features

编程方式：基于作业序列的示教编程方式，灵活的表达能力（支持变量定义、判断、循环、跳转、调动、比较、运算、注释等）；
动作指令：具备运动（点到点、直线、圆弧）、逻辑（数字量、模拟量、脉冲、编码器）、控制运算、子程序调用、功能块定制等；
工艺功能：支持码垛堆叠、自由堆叠、机器视觉、跟随、注塑、冲压、智能分拣、远程等功能，应用广泛；
坐标系统：支持关节坐标、世界坐标、用户坐标、工具坐标、基坐标五类坐标系统，示教操作简便；
工作空间：支持长方体、圆柱体、球体三类空间区域，避免互相碰撞，安全可靠；
程序调试：支持单步调试（MSTEP）、逐行调试（ISTEP）以及单循环调试（SCYCLE），程序校验高效；
用户权限：支持五类等级权限，配置明晰，管理便捷；
数据记录：实时记录参数变更、操作过程等数据，方便机器故障追溯；
机型配置：通过导入不同机型文件，快速适配各种机型。

Programming mode: teaching programming mode based on job sequence, flexible expression ability (support variable definition, judgment, cycle, jump, transfer, comparison, operation, annotation, etc.);
Action command: motion (point-to-point, straight line, arc), logic (digital quantity, analog quantity, pulse, encoder), control operation, subroutine call, function block customization, etc;
Process function: support the functions of stacking, free stacking, machine vision, following, injection molding, stamping, intelligent sorting, remote, etc., which are widely used;
Coordinate system: support five kinds of coordinate systems including joint coordinate, world coordinate, user coordinate, tool coordinate and base coordinate, which is easy to teach and operate;
Workspace: It supports three types of space areas: cuboid, cylinder and sphere, avoiding collision with each other, and is safe and reliable;
Program debugging: supports single step debugging (MSTEP), line by line debugging (ISTEP), and single loop debugging (SCYCLE), with efficient program verification;
User permissions: support five levels of permissions, clear configuration and convenient management;
Data recording: real-time recording of parameter changes, operation process and other data to facilitate machine fault tracing;
Model configuration: quickly adapt various models by importing different model files.

尺寸安装图

Dimension installation drawing



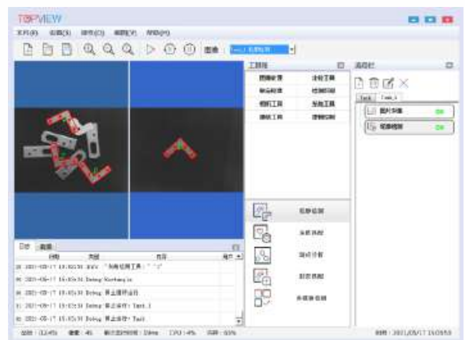
项目 ITEM	描述 DESCRIPTION
处理器 Processor	四核处理器 Quad-Core Processor
操作系统 Operating system	Linux/openEuler Embedded
显示 Display	8英寸液晶显示屏，分辨率1024*768 8 inch LCD, resolution 1024 * 768
控制模式 Control model	触摸屏/实体按键 Touch screen/Physical keys
外部接口 External interface	1*百兆/千兆网络，1*USB HOST 1*100M/1000M NETWORK,1*USB HOST

SELF-DEVELOPED VISION
自研视觉

TopView 2.0

- 微内核+模块化设计
- 可拖拽图形化工程搭建，无需编程
- 自研加速框架，快速高精度视觉定位
- 多目标搜索与分类
- AI智能分拣
- 可应用于对位贴合，机器人引导，电子抓取等常用工业场景

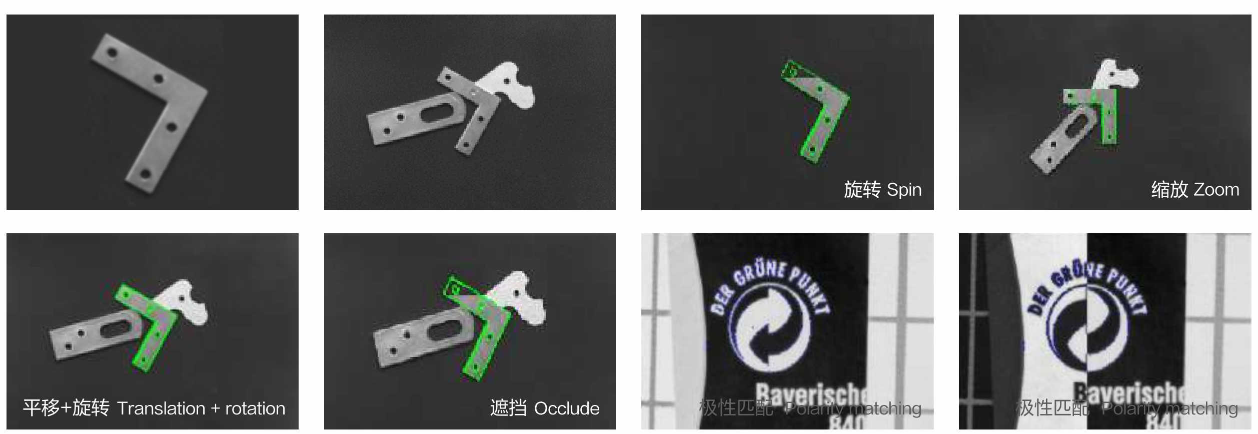
- Microkernel + modular design
- Drag and drop graphical project construction without programming
- Self-developed acceleration framework, fast and high-precision visual positioning
- Multi-target search and classification
- AI intelligent sorting
- It can be applied to common industrial scenes such as positioning and lamination, robot guidance, electronic grasping, etc.



模板匹配功能
Template matching function

- 灵活选择灰度图像或边缘轮廓作为模板进行匹配
- 允许目标图像存在旋转（0-360°），遮挡（0-50%），缩放（0.5-1.5倍）
- 支持极性，抗非线性光照变化与杂波，内置提前截止加速算法
- 内置SSE与OpenMP加速
- 支持多目标识别，匹配耗时小于20ms，定位精度1pixel

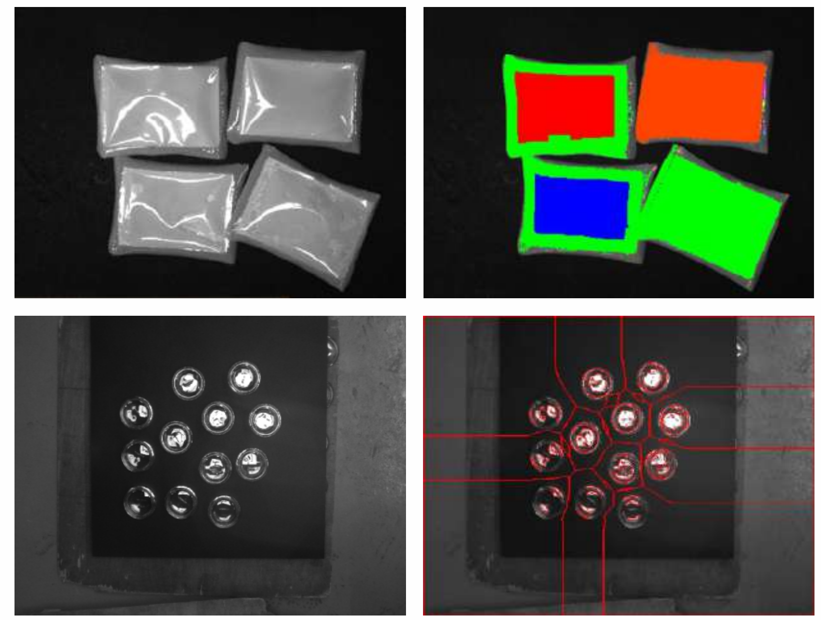
- Flexible selection of grayscale images or edge contours as templates for matching
- Allow the target image to have rotation (0-360°), occlusion (0-50%), zoom (0.5-1.5 times)
- Support polarity, anti-non-linear illumination changes and clutter, built-in early cut-off acceleration algorithm
- Built-in SSE and OpenMP acceleration
- Support multi-target recognition, matching time is less than 20ms, positioning accuracy is 1pixel



斑点分析功能
Spot analysis function

- 通过合理阈值对柔性目标进行分割，输出中心位置
- 通过形态学运算解决目标粘连和部分堆叠问题
- 匹配耗时小于10ms，定位精度1pixel
- 支持多工具嵌套，实现快速分割和计数

- The flexible target is segmented by a reasonable threshold, and the center position is output
- Solve the problem of target adhesion and partial stacking through morphological operations
- Matching time is less than 10ms, positioning accuracy is 1pixel
- Support multi-tool nesting, realize fast segmentation and counting



AI智能分拣
AI intelligent sorting

- 更快的部署时间，识别准确率高达99.9%
- 适应各种光照环境和成像质量
- 可以判断来料朝向、可实现堆叠来料抓取

- Faster deployment time, recognition accuracy rate up to 99.9%
- Adapt to various lighting environments and image quality
- Can judge the direction of incoming materials, and can realize stacking incoming materials grabbing

TOP-STUDIO OFFLINE PROGRAMMING SOFTWARE

Top-studio离线编程软件

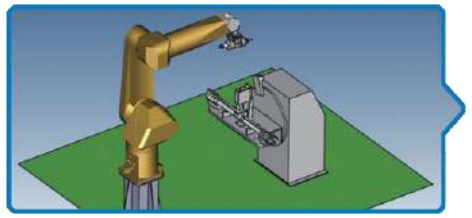
应用模式介绍

Application mode introduction

软件支持ABB、KUKA、topstar 机器人仿真验证，以及模型导入，轨迹生成，后置代码于一体，最终至真机运行。

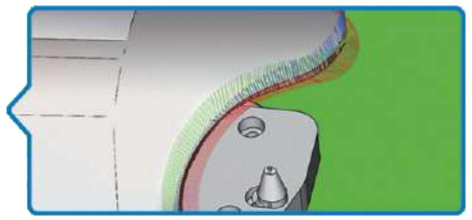
The software supports ABB, KUKA, topstar robot simulation verification, as well as model import, trajectory generation, post-code integration, and finally run on the real machine.

1



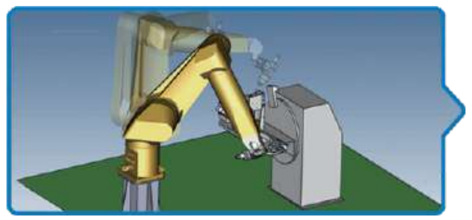
导入模型，场景搭建 Import the model and build the scene

2



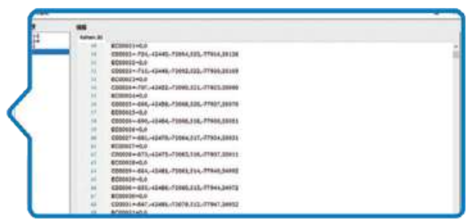
轨迹生成 Trajectory generation

3



仿真验证 Simulation

4



后置代码 Postcode

5

真机运行 Real machine operation

应用案例

Applications

打磨/抛光——轨迹历史记忆，支持多次调整

Polishing/polishing-track history memory, support multiple adjustments

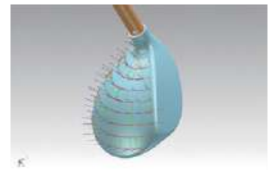
打磨工艺需要根据实际情况对轨迹进行多次修改，直至达到满意的效果。Top-studio利用独有的参数化轨迹设计专利技术，将轨迹的每个步骤进行参数化处理，当修改结果达不到要求时，可回退至任意步骤进行调整，后续轨迹自动计算，使轨迹的修改和迭代效率大幅度提升。

The polishing process needs to modify the trajectory several times according to the actual situation until a satisfactory result is achieved. Top-studio uses the unique patented technology of parametric trajectory design to parameterize each step of the trajectory. When the modified result fails to meet the requirements, it can go back to any step for adjustment, and the subsequent trajectory is automatically calculated to make the trajectory The efficiency of modification and iteration has been greatly improved.

仿行程与干涉

Imitation travel and interference

Top-studio核心功能 Top-studio core functions



轨迹的生成与编辑

Trajectory generation and editing

九大类生成轨迹方式，上百个轨迹参数，数十个参数化轨迹修改方式。

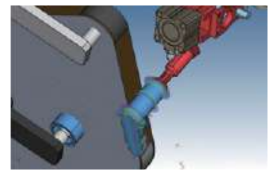
Nine types of trajectory generation methods, hundreds of trajectory parameters, and dozens of parameterized trajectory modification methods.

可达空间实时计算

Real-time calculation of reachable space

软件不仅可以计算机器人的法兰位置的可达空间，也可以计算机器人末端执行器的可达空间，让您的工作站设计和轨迹规划更加真实高效。

The software can not only calculate the reachable space of the flange position of the robot, but also calculate the reachable space of the robot end effector, making your workstation design and trajectory planning more realistic and efficient.

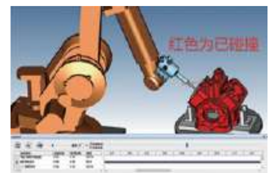


外部工具编程

External tool programming

机器人常见工作方式有一下两种：①手持工具，零件固定；②手持零件，工具固定；
第二种称为外部工具，变成更复杂。Top-studio提供了外部工具、变位工具、连续TCP、工件坐标系等配合使用，使手持零件不再复杂。

There are two common working methods of robots: ①Hand-held tools, fixed parts; ②Hand-held parts, fixed tools; The second type is called external tools and becomes more complex. Top-studio provides external tools, displacement tools, continuous TCP, workpiece coordinate system, etc. to cooperate with each other, so that hand-held parts are no longer complicated.

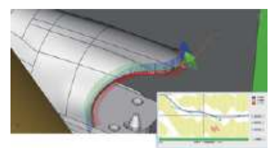


碰撞检测

Impact checking

仿真时，开启碰撞检测功能，可以模拟检测出机器人在运动时和周边的零部件、设施的碰撞情况，并通过高亮线和输出碰撞信息加以提示。

During simulation, the collision detection function is turned on to simulate and detect the collision between the robot and the surrounding parts and facilities when the robot is in motion, and prompt it by highlighting the line and outputting collision information.

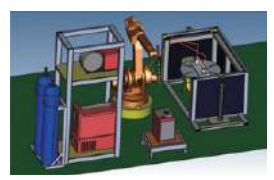


轨迹优化

Trajectory optimization

可把轨迹中的奇异点、轴限位、不可达、碰撞等信息反映在界面上，通过鼠标拖动自动避让，快速获得理想轨迹，提高工作效率。

The singular point, axis limit, unreachable, collision and other information in the trajectory can be reflected on the interface, and the mouse can be dragged to automatically avoid the ideal trajectory quickly and improve work efficiency.



外部轴联动

External axis linkage

通过外部轴联动的插值功能，用户可优化外部轴位置以实现沿整个刀具路径的平滑运动，而不需要手动修改每个机器人之间的目标位置控制点。

Through the interpolation function of the external axis linkage, the user can optimize the position of the external axis to achieve smooth movement along the entire tool path, without the need to manually modify the target position control point between each robot.

SCARA ROBOT APPLICATION CASE

SCARA机器人应用案例

手机充电宝金属接触元件的上料组装设备

Loading and assembling equipment for metal contact components of mobile phone charging treasure

- **项目概述：**采用SCARA机器人搭配视觉对金属接触元件自动组装；
- **产品：**手机充电宝金属接触元件；
- **核心配置：**TS650-03款SCARA、自主研发TOP视觉；
- **工艺流程：**上料气缸上料 → 视觉拍照 → 机器人取料机器人将产品埋入转盘充电宝壳位置 → 对埋入的产品定位检测。

- **Project Overview:** Using SCARA robots with vision to automatically assemble metal contact components
- **Product:** Mobile phone charging treasure metal contact element
- **Core configuration:** TS650-03 SCARA, independently developed TOP vision
- **Process flow:** loading cylinder → visual photography → robot picking, the robot embeds the product in the position of the turntable charging case → detects the positioning of the embedded product.

项目效果 Project effect

1. 重复定位精度：±0.05mm
2. 周期快：2s/pcs
3. 省人：设备节省人力2人
4. 兼容性强：可对不同产品抓取埋入

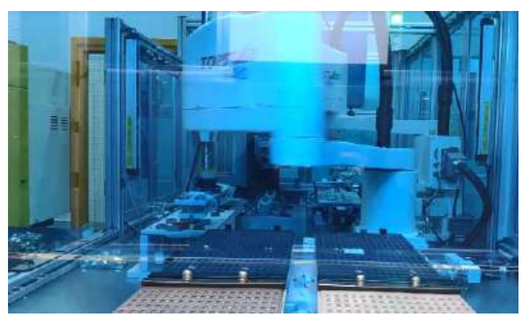
1. Repeat positioning accuracy: ±0.05mm
2. Fast cycle: 2s/pcs
3. Manpower saving: equipment saves 2 manpower
4. Strong compatibility: different products can be captured and embedded

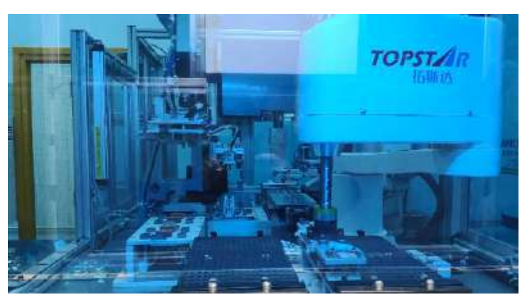
电路板金属IC电子元件埋入组装

Circuit board metal IC electronic components embedded assembly

- **项目概述：**采用SCARA机器人代替人工对电路板金属IC元件进行自动上料埋入；
- **产品：**电路板金属电子IC元件；
- **核心配置：**TS650-03款SCARA；
- **工艺流程：**气缸上料 → 1号SCARA机器人将超声波剪切完的产品夹取放置工位1上 → 2号SCARA再将码盘中的料放置工位1上 → 注塑机机械手取料 → 放入注塑机注塑成型。

- **Project Overview:** Use SCARA robots instead of manual to automatically load and embed the metal IC components of the circuit board;
- **Product:** Circuit board metal electronic IC components;
- **Core configuration:** TS650-03 SCARA;
- **Process flow:** Cylinder loading → No. 1 SCARA robot clamps the ultrasonically cut product and places it on station 1 → No. 2 SCARA then places the material in the code plate on station 1 → injection molding machine robot takes the material → puts in Injection molding machine for injection molding.





项目效果 Project effect

1. 重复埋入精度：±0.02mm
2. 省人：设备节省人力2-3人
3. 周期：1.5s/pcs

1. Repeated embedding accuracy: ±0.02mm
2. Manpower saving: equipment saves 2-3 manpower
3. Cycle: 1.5s/pcs

取暖器制热片自动上下料

Automatic loading and unloading of heating fins of heater

- **项目概述：**采用SCARA机器人对取暖气制热片进行自动上下料；
- **产品：**五金取暖器制热片；
- **核心配置：**拓星辰I号 SCARA，直角坐标机器人，震动盘；
- **工艺流程：**震动盘来料 → 直角坐标系机械手排版取料放置中转台 → SCARA机械手取料放置上位机通讯指定高度的位置进行合模加工。

- **Project Overview:** Using SCARA robots to automatically load and unload heating fins;
- **Product:** Hardware heater heating film;
- **Core configuration:** TOPSTAR I SCARA, Cartesian coordinate robot, vibration plate;
- **Process flow:** Vibrating plate incoming material → Cartesian coordinate system manipulator typesetting, reclaiming and placing the turntable → SCARA manipulator reclaiming and placing the upper computer communication at the specified height position for mold clamping processing.

下料机：传感器（4条传送带，8s）
Unloader: Sensor (4 conveyor belts, 8s)

项目效果 Project effect

1. 组装精度：±0.015mm
2. 机械手数据处理：定制版Modbus通信做主站，10ms数据刷新，支持浮点数运算；
3. 省人：节省2-3人的人力

1. Assembly accuracy: ±0.015mm
2. Manipulator data processing: customized Modbus communication as master station, 10ms data refresh, support floating point calculation
3. People-saving: save 2-3 people's manpower

纸壳包装贴合应用设备

Paper packaging laminating application equipment

- **项目概述：**采用SCARA机器人代替人工实现纸壳柔性贴合工艺；
- **产品：**包装纸壳；
- **核心配置：**TS650-03款SCARA 自主研发TOP视觉；
- **工艺流程：**Tray盘上料A → 四轴机械手自动取料B → 双相机进行拍照定位来料A → 机器人精准贴合AB → 传送带流入下一个工位。

- **Project Overview:** Using SCARA robots instead of manual implementation of the paper shell flexible bonding process;
- **Product:** packaging paper case
- **Core configuration:** TS650-03 SCARA independently developed TOP vision;
- **Process flow:** Tray tray loading A → four-axis manipulator automatic reclaiming B → dual cameras to take pictures and positioning incoming materials A → robots accurately fit AB → conveyor belt flows into the next station.

纸盒包装：31pcs/min 精度正负0.3mm
Carton packaging: 31pcs/min, accuracy plus or minus 0.3mm

项目效果 Project effect

1. 精准贴合：±0.04mm
2. 双相机拍照定位：来料放置更精准，兼容多尺寸产品
3. 周期：2s/pcs
4. 省人：可节省人力1-2人

1. Precise fit: ±0.04mm
2. Dual camera camera positioning: more accurate placement of incoming materials, compatible with multi-size products
3. Cycle: 2s/pcs
4. Manpower saving: 1-2 people can be saved

核酸检测鼻/咽拭子包装解决方案
Nucleic acid testing nasal/pharyngeal swab packaging solution

- **项目概述：** 核酸检测鼻/咽拭子包装解决方案；
- **产品：** 鼻/咽拭子；
- **核心配置：** 拓星辰TR003-HP600；
- **工艺流程：** 摆放拭子到设备载具→载具运行到裁切工位→自动裁切尾料→机器人夹取拭子→机器人自动摆放到包装线体→载具退回到上料位。

- **Project Overview:** Nucleic acid testing nasal/pharyngeal swab packaging solution
- **Product:** Nasal/pharyngeal swabs
- **Core configuration:** TR003-HP600
- **Process flow:** Placement of swab to equipment carrier→carrier moves to cutting station→automatic spur cutting→robot grabs the swabs→ robot automatically places the swabs to the packaging line → carrier returns to the loading position.

项目效果 Project effect

1. 重复定位精度：±0.01mm
2. 省人：3-5人
3. 周期：2.5s/次，每次抓取20支

1. Repeat positioning accuracy: ±0.01mm
2. Labor saving: 3-5 people
3. Cycle: 2.5s/cycle, 20 pcs per grab

特点 Features

1. 产出高：生产线效率提成(升)10%
2. 回本快：3个月可收回投入成本

1. High output: 10% improvement in production line efficiency
2. Fast payback: 3 months of cost return

SIX-AXIS ROBOT APPLICATION CASE
六轴机器人应用案例

轻合金上下料项目
Light alloy loading and unloading project

- **项目概述：** 机器人于冲压机取件，进行后端冷却，切边，CNC加工等工序；
- **产品：** 轻合金；
- **核心配置：** 拓星际R142-10-A 机器人；
- **工艺流程：** 1号机器人于压铸机取件 → 放置冷却台 → 2号机器人取件放置切边机 → 3号机器人取件放置CNC加工 → 4号机器人取件下料。

- **Project overview:** The robot picks up parts from the punching machine, performs rear-end cooling, trimming, CNC machining and other processes;
- **Product:** light alloy;
- **Core configuration:** TOPSTAR R142-10-A robot;
- **Process flow:** No. 1 robot picks up parts from die-casting machine → Places cooling table → No. 2 robot picks up parts and places the trimming machine → No. 3 robot picks up parts and places CNC processing → No. 4 robot picks up parts and unloads.

项目效果 Project effect

1. 机器人重复精度:±0.02mm
2. 周期：16s/4pcs（16秒每模产品）
3. 省人：3-4人

1. Robot repeat accuracy: ±0.02mm
2. Cycle: 16s/4pcs (16 seconds per product)
3. Save people: 3-4 people

特点 Features

使用机器人，可提高生产效率及品质，降低人工成本。

The use of robots can improve production efficiency and quality, and reduce labor costs.

键盘托盘上下料项目
Keyboard tray loading and unloading items

- **项目概述：** 机器人配合机械手进行键盘组装；
- **产品：** 键盘托盘；
- **核心配置：** 拓星际R092-06-A 机器人、注塑机、机械手；
- **工艺流程：** 机器人取键盘托盘放置定位台 → 机械手于注塑机取键帽放至键盘托盘上 → 机器人取成品下料。

- **Project Overview:** The robot cooperates with the linear robot to assemble the keyboard;
- **Product:** keyboard tray;
- **Core configuration:** TOPSTAR R092-06-A robot, injection molding machine, linear robot;
- **Process flow:** the robot takes the keyboard tray and places it on the positioning table → the linear robot takes the keycap from the injection molding machine and puts it on the keyboard tray → the robot takes the finished product and unloads the material.

项目效果 Project effect

1. 机器人重复精度:±0.02mm
2. 周期：35s/pcs
3. 省人：1-2人

1. Robot repeat accuracy: ±0.02mm
2. Cycle: 35s/pcs
3. save people: 1-2 people

化妆品瓶组装项目
Cosmetic bottle assembly project

- **项目概述：**机器人配合视觉取化妆品瓶配件进行组装；
- **产品：**化妆品瓶；
- **核心配置：**拓星际R092-06-A 机器人、组装线设备、视觉；
- **工艺流程：**化妆品瓶配件上料视觉拍照定位 → 机器人取件进装配。

- **Project overview:** robots cooperate with vision to take cosmetic bottle accessories for assembly;
- **Product:** cosmetic bottle;
- **Core configuration:** TOPSTAR R092-06-A robot, assembly line equipment, vision;
- **Process flow:** cosmetic bottle accessories feeding visual camera positioning → robot picks up the parts for assembly.

项目效果 Project effect

1. 机器人重复精度:±0.02mm
2. 省人：1-2人
3. 周期：11s/pcs

1. Robot repeat accuracy: ±0.02mm
2. Save people: 1-2 people
3. Cycle: 11s/pcs

特点 Features

机器人配合视觉实现自动抓取配件组装，提高生产效率，提高生产品质。减少人工成本。

The robot cooperates with the vision to realize the automatic grasping of accessories and assembly, which improves production efficiency and production quality.Reduce labor costs.

纸质餐盘下料码垛
Unloading and palletizing of paper dinner plates

- **项目概述：**2台大机器，1台小机器人，配合两台成型机，两台切边机， 完成产品的成型、转移、切边，成品码垛；
- **产品：**纸质餐盘；
- **核心配置：**ABB6700机器人，拓星际R142-10-A 机器人；
- **工艺流程：**机器人于成型机取料放置干燥机 → 再从干燥机取料放置切边机 → 再从切边机取产品下料码垛。

- **Project overview:** 2 large machines, 1 small robot, combined with two forming machines and two trimming machines, complete product forming, transfer,trimming, and palletizing of finished products;
- **Product:** paper dinner plate;
- **Core configuration:** ABB6700 robot, TOPSTAR R142-10-A robot;
- **Process flow:** the robot takes the material from the forming machine and places the dryer → then takes the material from the dryer and places the trimming machine → then takes the product from the trimming machine, unloads and pallets.

项目效果 Project effect

1. 机器人重复精度:±0.05mm
2. 省人：4-5人
3. 周期：10s/模（单模12pcs产品）

1. Robot repeat accuracy: ±0.05mm
2. Save people: 4-5 people
3. Cycle: 10s/mold (12pcs single-mode product)

特点 Features

使用机器人集成，提高生产效率及品质，将人工从高温等恶劣环境替换出来。

Use robot integration to improve production efficiency and quality, and replace labor from harsh environments such as high temperatures.

客户服务——服务平台
CHAPTER OF SERVICE

拓斯达小程序、售后服务、全球服务网点

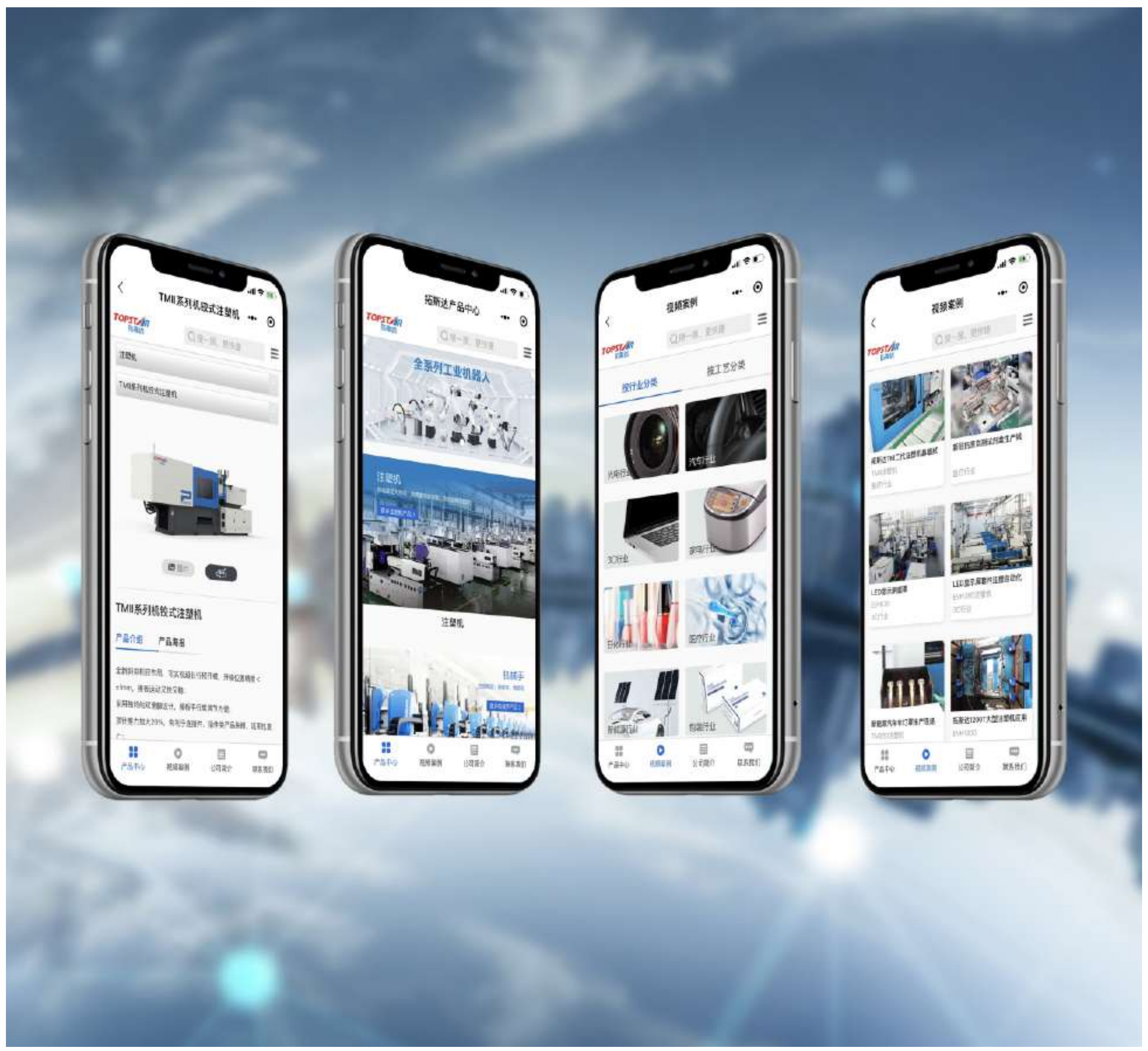
Topstar Applet、After-Sale Service、Global Service Net

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 keywords to find relevant products and video cases.

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 products can be forwarded and shared through WeChat.

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
An information platform integrating product pictures, parameters, posters, simple manuals, and case videos, with 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 automation production line site videos. compare with the most real case, solve the problem about long distances to visit, save the time and efficient understand Project function.

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 solution and so on.

一部拓斯达产品资料库
E-catalog of TOPSTAR product.

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 can also fully understand the Topstar products and equipment information 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码即可进入；
Use WeChat to scan the QR code of the applet on the left to enter.

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.

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 Processing

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.

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

宁德时代	亿纬锂能	新能德
珠海冠宇	捷普绿点	蜂巢能源
裕同科技	多氟多	晶澳科技
正崴集团	卫龙	长盈精密
欣旺达	伯恩光学	立讯精密
长城汽车	比亚迪	富士康
华为	宇瞳光学	旺盈包装
三一重工	精研科技	新宝电器