

ENTERPRISE 企业简介

BRIEF INTRODUCTION

浙江钱江机器人有限公司成立于2013年7月，是浙江菱仕达电器股份有限公司（股票代码：002403）控股，拥有自主知识产权和核心技术的机器人高科技企业。

公司始终专注于工业机器人本体以及核心零部件技术，以技术驱动带动机器人差异化，为客户提供优质的服务和项目涵盖自动化燃线设计安装、智能工厂建设等多个领域，致力于为客户提供系统解决方案和交钥匙工程。

目前，钱江机器人在杭州、哈尔滨已经设立全资子公司，在上海成立机器人研究院，完整掌握了工业机器人控制器、伺服驱动器、系统软件、减速机、本体设计、机器视觉等核心技术。

公司可以提供负载从3KG至800KG标准的Delta、6轴、4轴工业机器人，以及一些特殊应用机器人。公司目前已在多个应用领域实现了突破，熟练掌握焊接、切割、喷涂、打磨抛光、分拣、装配、上下料、搬运码垛等多种工艺，广泛应用于汽车、3C、五金、食品饮料、金属加工等行业，在相关领域积累了广泛的客户基础和良好的市场信誉，已走在中国国产高品质工业机器人的前列。

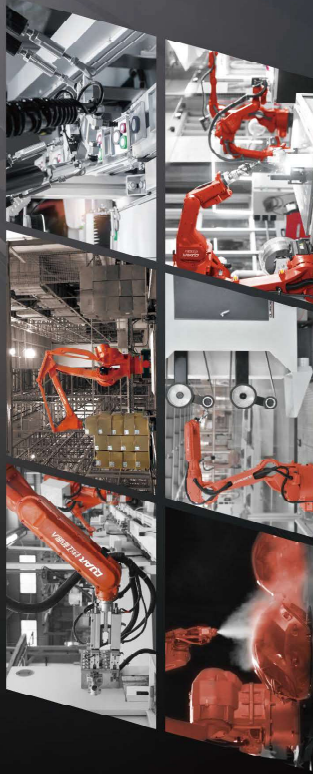
Zhejiang Qianjiang Robot Co., Ltd. was established in July, 2013. It is a high-tech robot enterprise with independent intellectual property rights and core technology. It is a holding company of Zhejiang Aishida Electric Co., Ltd. (stock code: 002403).

The company has always focused on industrial robot design and core components technologies, with technology leading competitiveness. It provides high-quality services for integrators with projects covering the full production line automation, intelligent plant construction and is committed to providing customers with complete system solutions and turn key projects.

At present, Qianjiang Robot Co., Ltd. has set up a fully owned subsidiary in Hangzhou and Harbin, a research institute in Shanghai, a complete control of industrial robot core technologies including controller, servo driver, system software, speed reducer and vision system.

The company can provide standard industrial Delta, six-axis and four-axis robots from 3kg to 800kg, as well as some special application robots. The company has achieved major breakthrough in welding, cutting, spraying, polishing, sorting, assembly, loading, palletizing, and have been widely used in intelligent manufacturing industry such as the automotive, motorcycle, 3C, hardware, food and beverage and CNC machining.

The company has been leading the forefront of high-quality domestic Chinese industrial robot and has accumulated a wide range of customer base and good market reputation.



DEVELOPMENT HISTORY

发展历程

2010
In July

公司开始筹建，并与哈工大签订合作协议，开始研发机器人。

The company began to build and signed a cooperation agreement with Harbin Institute of Technology (HIT) to develop industrial robot.

2013
In July

公司正式成立，同年12月，公司第一款机器人QJRH6-1上线生产。

The company was formally established. In December, the company's first robot, QJRH6-1, was launched.

2014
In January

专门针对焊接而研发的QJRH4-1焊接机器人正式下线。

The QJRH4-1 welding robot developed for welding was officially delivered.

2015
In March

2.0 < g 防爆喷涂机器人 QJR20-1正式投入市场，并在2016年5月该款机器人通过防爆认证，成为国内首家获得国家认可的防爆喷涂机器人。

20 kg explosion-proof spraying robot QJR20-1 was launched into market, and in June 2015, the robot passed the explosion-proof certification, became the first company on the market to obtain national recognition of explosion-proof spraying robot.

2016
In October

爱仕达收购公司51%股份，成为最大股东。自此，钱江机器人成为爱仕达控股，钱江摩托参股子公司。

ASD acquired 51% stake of the company and became the largest shareholder. Since then QJAR has become a subsidiary of ASD and Qianjiang motorcycle.

2017
In June

3.0自主控制机器人，减速机获得突破，多型号工业机器人步入量产阶段；6月，公司首款大型四轴码垛机器人QJRB600-1研发成功并推向市场。

In March 2017, the company had a major breakthrough in the development of speed reducer and controller. At the same time, multiple models of industrial robots entered into mass production stage.



- 2014年，公司先后成立“浙江省重点企业研究院”、“浙江省钱江工业机器人研究院”；
- 2016年1月，公司获得哈工大“优秀国内机器人品牌奖”；
- 2016年6月，20kg防爆喷涂机器人QJR20-1通过防爆认证，成为市面上唯一一家获得国家认可的防爆喷涂机器人；
- 2016年11月，4kg弧焊机器人获得TUVA产品认证，成为首批获得中国机器人产品认证证书的工业机器人企业；
- 2016年12月，公司获得高工金球奖-2016年度技术创新奖；
- 2017年3月，公司获得哈工大2016年度最佳行业应用奖；
- 2017年7月，公司获得CIROS“金手指奖”；
- 2017年8月，ISO9001-2015质量管理体系认证。

AWARDS 企业荣誉

In 2014, the company has become a "key enterprises in zhejiang province institute", "zhejiang qianjiang industrial robot research institute";

In January 2016, the company capek - excellent domestic robots brand award;

In June 2016, 20 kg explosion-proof spraying robot QJR20-1 through explosion-proof certification, become the only company on the market to obtain national recognition of explosion-proof spraying robot;

In November 2016, 4 kg for arc welding robot TUVA product certification, become the first Chinese robot product certification certificate of industrial robot; enterprise;

In December 2016, the company get high golden globe - 2016 technical innovation;

In March 2017, the company capek 2016 industry application of the year award;

In July 2017, the company get CIROS "gold finger prize";

In August 2017 ISO9001-2015 quality management system certification.

产品介绍

PRODUCTS INTRODUCTION

公司现有3kg/4kg/6kg/70kg/20kg/50kg/210kg六轴、Delta、15kg/30kg/180kg/600kg四轴等全类高性能工业机器人。

Qian Jiang robot company now has six axis robots, including 3kg/4kg/6kg/70kg/20kg/50kg/210kg, four axis robots, including 15kg/30kg/180kg/600kg, delta and other high performance industrial robot.

六轴 Delta 四轴 喷涂 码垛

上下料

焊接

抛光

分拣



QJR6S-1

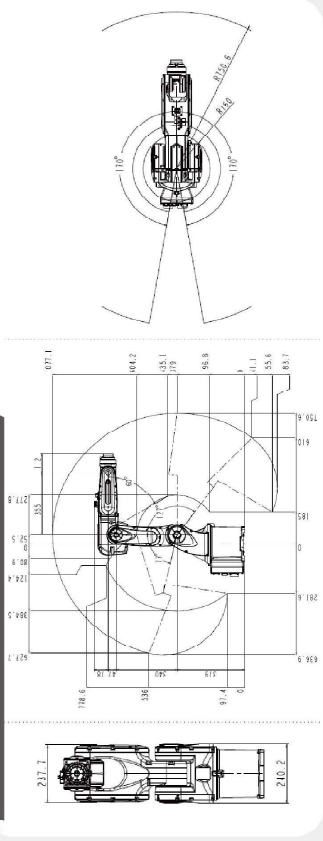
INDUSTRIAL ROBOT



- 整个系统结构紧凑、机身轻巧、工作空间大、响应速度快、重复定位精度高，可适用于装配、分拣、搬运、上下料等应用。
- The overall system architecture of the robot is compact, lightweight, large workspace, fast response, high repeat positioning accuracy, applicable to assembly, sorting, handling, loading and unloading applications.

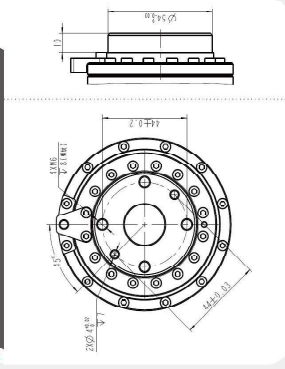
机器人外形尺寸和最大动作范围图

Figure Of Robot Size And Maximum Motion Range



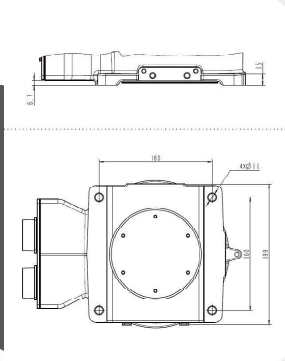
机器人末端安装尺寸图

Dimension Chart Of Robot End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	垂直多关节 Vertical multi-joint robot		
轴数 Axis Number	6	允许扭矩 Allowable Torque	J4 8.73 N·m J5 8.73 N·m J6 4.41 N·m
有效载荷 Payload	61g	惯性力矩 Inertia Moment	J4 0.47 kg·m ² J5 0.47 kg·m ² J6 0.06 kg·m ²
重复定位精度 Repeat Positioning	±0.02mm	安装环境 Installation Environment	温度 Temperature 0~45 °C 湿度 Humidity 20%~80% RH (不结露) 防护等级 Protection Degree IP67
最大臂展 Max. Reach	750.6mm	电机 Motor	振动 Vibration <4.9m/s ² (0.5G) 其他 Others 避免易燃、腐蚀性气体和液体； 避免可燃性腐蚀性气体和液体； 避免接触水、油、粉尘等； 勿接近电器散热源。 Do not get approach electrical noise source.
防护等级 Protection Degree	IP67	电源容量 Power Capacity	1.5kVA
本体重量 Robot Body Weight	39kg	电机尺寸 Motor Size	375*42*121mm
机械限位范围 Motion Range	J1 +172° J2 +132° , -82° J3 +65° , -190° J4 +172° J5 +120° J6 +360°	电箱重量 Cabinet Weight	15kg
最大速度 Max Speed	J1 367°/s J2 321°/s J3 367°/s J4 372°/s J5 476°/s J6 705°/s	电源 Source	单相220V+10%
		安装方式 Installation	地面、吊顶 Wall, Ceiling

QJR6-3

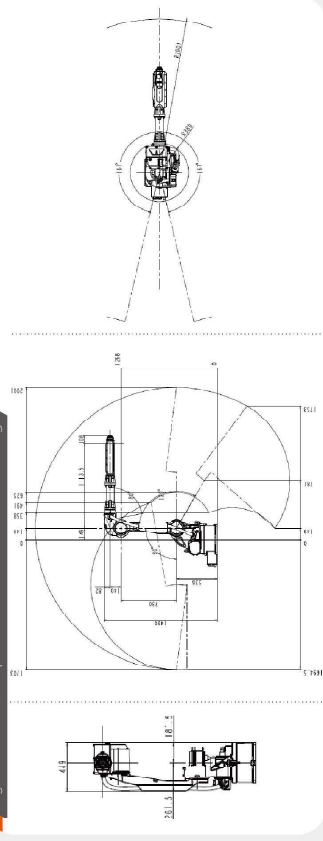
INDUSTRIAL ROBOT



- 机械结构简单且紧凑，可灵活选择地面安装或倒置安装；
- 臂展接近2米，工作空间大，可对较大型产品进行焊接作业；
- 速度快、重复定位精度高，适用于焊接、上下料、搬运、装配等应用，适用范围广。
- The mechanical structure is simple and compact. You can select ground or inverse installation
- The robot reach is nearly 2 meters. Large working space, suitable for large products in the welding operation.
- Fast running speed, high repeat positioning accuracy, suitable for welding, loading and unloading, handling, assembly and other applications.

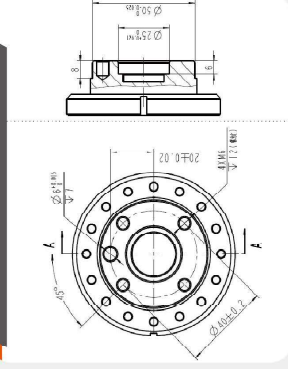
机器人外形尺寸和最大动作范围图

Figure Of Robot Shape Size And Maximum Motion Range



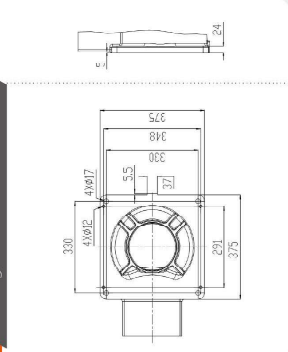
机器人末端安装尺寸图

Dimension Chart Of Robot-End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	垂直多关节 Vertical multi-joint robot		
轴数 Axis Number	6	允许扭矩 Allowable Torque	J4 8.81 N·m J5 8.81 N·m J6 3.14 N·m
有效载荷 Payload	6kg	惯性力矩 Inertia Moment	J4 0.2 kg·m ² J5 0.2 kg·m ² J6 0.03 kg·m ²
重复定位精度 Repeat Positioning Accuracy	±0.05mm	安装环境 Installation Environment	温度 Temperature 0~45℃ 湿度 Humidity 20%~80% RH (不结露) 海拔 Altitude 2000m以下
最大臂展 Maximum Reach	2001mm	其他 Others	避免易燃、腐蚀性气体和液体； Avoid flammable, corrosive gases and liquids; 避免接触水、油、粉尘等； Avoid contact with water, oil, dust, etc.; 勿接近电路和电源。 Do not approach electrical noise source.
防护等级 Protection Degree	IP30	电源容量 Power Capacity	3.8kVA
本体重量 Robot Body Weight	255kg	电机尺寸 Motor Size	580*600*960mm
机械限位范围 Motion Range	J1 +17° J2 +16°，-100° J3 +83°，-92° J4 +17° J5 +12° J6 +360°	电机重量 Motor Weight	130kg
最大速度 Max Speed	J1 172°/s J2 122°/s J3 207°/s J4 430°/s J5 447°/s J6 573°/s	电源 Source	三相四线+80V±0%
		安装方式 Installation	地面、吊顶 Wall, Ceiling

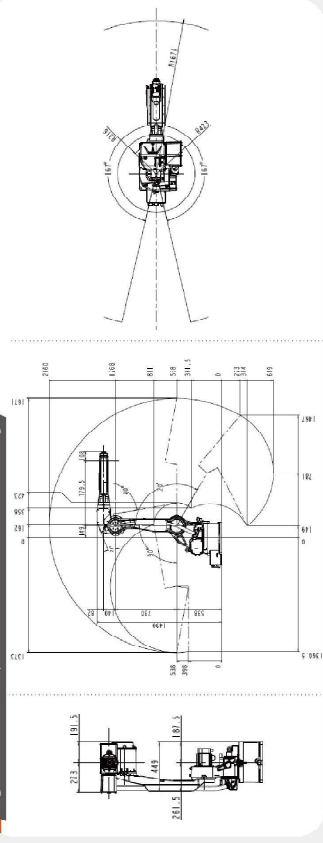
QJR10-1 INDUSTRIAL ROBOT



- 有效载荷10kg，臂展1.67米，设计结构紧凑，可灵活选择地面安装或倒置安装；
- 工作空间大，运行速度快，重复定位精度高，适用于焊接、喷涂、上下料、搬运、分拣、装配等应用，适用范围广。
- Payload 10kg, reach distance of 1.67 meters, the design is highly compact, flexible installation with ground or inverse position.
- Large workspace, high running speed, high repeat positioning accuracy, suitable for welding, spraying, loading and unloading, handling, sorting, assembly and other wide range of applications.

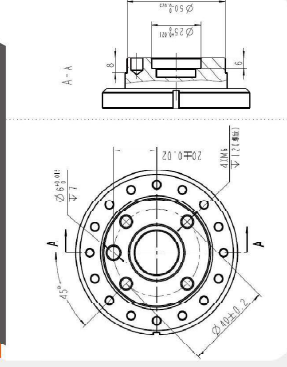
机器人外形尺寸和最大动作范围图

Figure Of Robot Shape Size And Maximum Motion Range



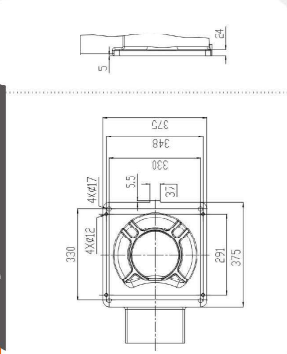
机器人末端安装尺寸图

Dimension Chart Of Robot End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	垂直多关节 Vertical multi-joint robot		
轴数 Axis Number	6	允许扭矩 Allowable Torque	J4 24.6 N.m J5 24.6 N.m J6 9.8 N.m
有效载荷 Payload	10kg	惯量力矩 Inertia Moment	J4 0.63 kg.m ² J5 0.63 kg.m ² J6 0.1 kg.m ²
重复定位精度 Repeat Positioning	±0.03mm	安装环境 Installation Environment	温度 Temperature 0~45℃ 湿度 Humidity 20%~80% RH (不结露) 振动 Vibration <4.9m/s ² (0.5G) 其他 Others 避免易燃、腐蚀性气体和液体； 避免易燃、腐蚀性气体和液体； 避免接触水、油、粉尘等； 避免接触水、油、粉尘等； 勿接近电器和电源。 Do not get approach electrical main source.
最大臂展 Maximum Reach	1.67mm	电源容量 Power Capacity	3.3kVA
防护等级 Protection Degree	IP30	电机尺寸 Motor Size	580*600*960mm
本体重量 Robot Body Weight	250kg	电机重量 Motor Weight	130kg
机械限位范围 Motion Range	J1 +17° J2 +16° , -107° J3 +83° , -92° J4 +17° J5 +12° J6 +360°	电源 Source	三相四线380V±10%
最大速度 Max Speed	J1 172°/s J2 172°/s J3 182°/s J4 430°/s J5 430°/s J6 584°/s	安装方式 Installation	地面、吊顶 Wall, Ceiling

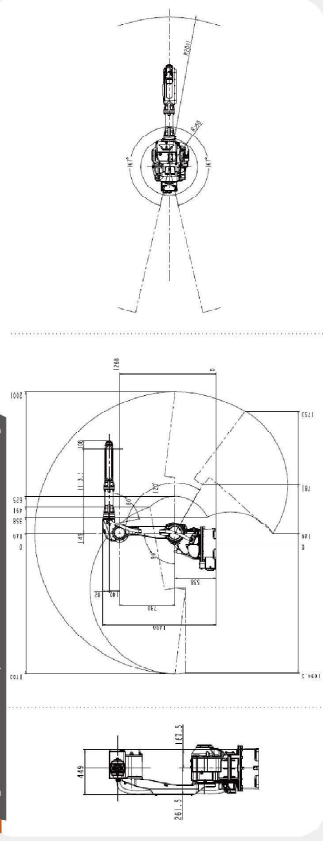
QJR10-2 INDUSTRIAL ROBOT



- 有效载荷10kg，臂展2米，设计结构紧凑，可灵活选择地面安装或倒置安装。
- 工作空间大，运行速度快，重复定位精度高，适用于焊接、喷涂、上下料、搬运、分拣、装配等应用，适用范围广。
- Payload 10kg, reach distance of 2 meters, the design is highly compact, flexible installation with ground or inverse position.
- Large workspace, high running speed, high repeat positioning accuracy, suitable for welding, spraying, loading and unloading, handling, sorting, assembly and other wide range of applications.

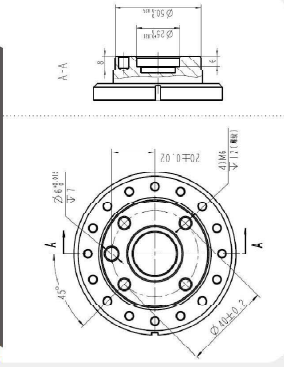
机器人外形尺寸和最大动作范围图

Figure Of Robot Shape Size And Maximum Motion Range



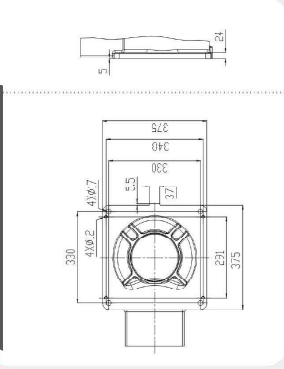
机器人末端安装尺寸图

Dimension Chart Of Robot End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	垂直多关节 Vertical multi-joint robot		
轴数 Axis Number	6	允许扭矩 Allowable Torque	J4 24.6 N.m J5 24.6 N.m J6 9.8 N.m
有效载荷 Payload	10kg	峰值扭矩 Inertia Moment	J4 0.63 kg.m ² J5 0.63 kg.m ² J6 0.1 kg.m ²
重复定位精度 Repeat Positioning	±0.03mm	安装环境 Installation Environment	温度 Temperature: 0~45 °C 湿度 Humidity: 20%~80% RH (不结露) 防护等级 Protection Degree: IP67
最大臂展 Max Reach	2000mm	电源容量 Power Capacity	4.2kVA
防护等级 Protection Degree	IP67	电机尺寸 Motor Size	580*600*960mm
本体重量 Robot Body Weight	275kg	电机重量 Motor Weight	130kg
机械限位范围 Motion Range	J1 +17° J2 +136° , -119° J3 +83° , -92° J4 +17° J5 +12° J6 +360°	电源 Source	三相四线:380V / -10% 三相五线:400V / -10%
最大速度 Max Speed	J1 150°/s J2 183°/s J3 430°/s J4 430°/s J5 602°/s J6 602°/s	安装方式 Installation	地面、吊顶 Wall, Ceiling

QJRB20-1

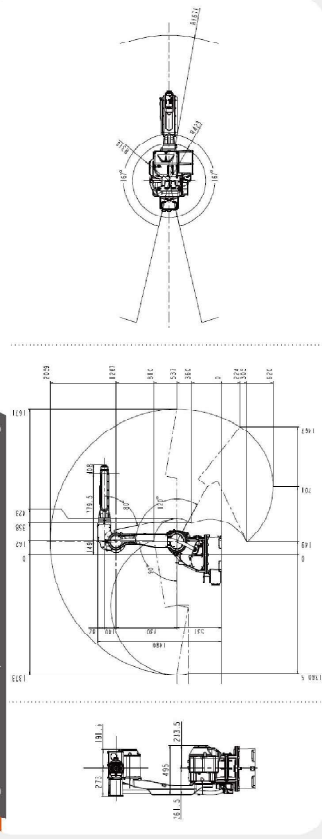
INDUSTRIAL ROBOT



- QJRB20-1是市面上国内首款防爆装置已通过国家认证的喷涂机器人；
- 此款机器人通过对垂直多关节结构进行优化设计，具有简单紧凑的机械结构；
- 采用总线结构，扩展应用方便，运行速度快，重复定位精度高，适用于码垛、搬运、上下料、激光切割、喷涂、抛光打磨等应用，适用范围广。
- QJRB20-1 is the first national certified spraying robot with an explosion-proof feature on the market
- Through the optimization of the structure of the vertical multi-joint robot, it has a simple and compact mechanical structure.
- High running speed, high repeat positioning accuracy, suitable for palletizing, handling, loading and unloading, laser cutting, spraying, polishing, and other wide range of applications.

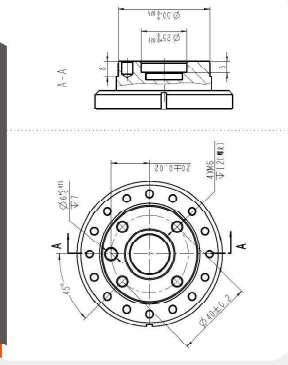
机器人外形尺寸和最大动作范围图

Figure Of Robot Shape Size And Maximum Motion Range



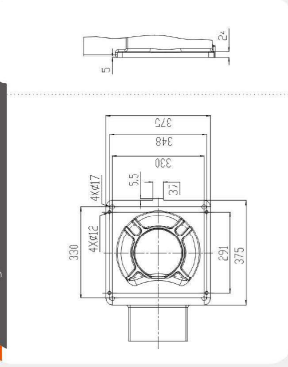
机器人末端安装尺寸图

Dimension Chart Of Robot End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	垂直多关节 Vertical multi-joint robot	允许扭矩 Allowable Torque	J4 38.81 N·m J5 38.81 N·m J6 29.4 N·m
轴数 Axis Number	6	惯性力矩 Inertia Moment	J4 3 kg·m ² J5 3 kg·m ² J6 2.2 kg·m ²
有效载荷 Payload	20kg	安装环境 Installation Environment	温度 Temperature 0~45℃ 湿度 Humidity 20%~80% RH (不结露) 振动 Vibration <4.3m/s ² (0.5G)
重复定位精度 Repeat Positioning	±0.05mm	其他 Others	避免易燃、腐蚀性气体和液体 Avoid flammable, corrosive gases and liquids 避免接触水、油、粉尘等； Avoid contact with water, oil, dust, etc. 勿接近电源装置。 Do not approach electrical source.
最大行程 Max. Stroke	±0.05mm	电源容量 Power Capacity	3.6kVA
防护等级 Protection Degree	IP67、Exdpx I B14Gb	防爆 Non explosion-proof	防爆 Explosion-proof
本体重量 Robot Body Weight	270kg	电接口尺寸 Electrical Interface	580*60*960mm
机构最低范围 Motion Range	J1 ±172° J2 +153°、-110° J3 +83°、-52° J4 ±170° J5 ±125° J6 ±360°	电接口重量 Cabinet Weight	130kg
最大速度 Max. Speed	J1 150°/s J2 150°/s J3 150°/s J4 281°/s J5 292°/s J6 372°/s	电源 Source	三相四线 380V±10% Three-phase four-wire
		安装方式 Installation	地面、吊钩 Wall - Ceiling

QJR20-2

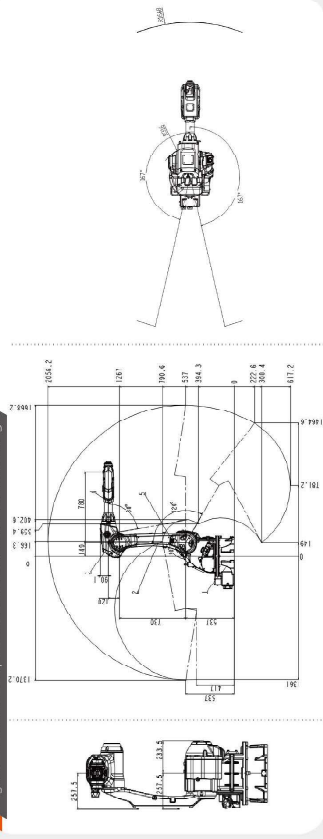
INDUSTRIAL ROBOT



- 此款机器人通过对垂直多关节结构进行优化设计，具有简单紧凑的机械结构；
- 采用总线结构，扩展应用方便，运行速度快、重复定位精度高，适用于码垛、搬运、上下料、激光切割、喷涂、抛丸打磨等应用，适用范围广。
- Through the optimization of the structure of the vertical multi-joint robot, it has a simple and compact mechanical structure
- High running speed, high repeat positioning accuracy, suitable for palletizing, handling, loading and unloading, laser cutting, spraying, polishing, and other wide range of applications.

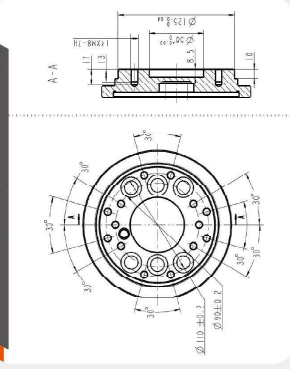
机器人外形尺寸和最大动作范围图

Figure Of Robot Shape Size And Maximum Motion Range



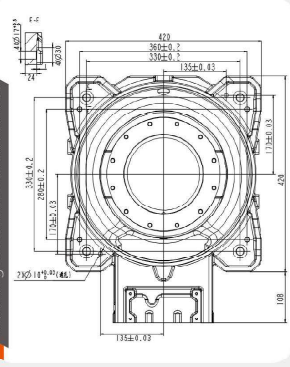
机器人末端安装尺寸图

Dimension Chart Of Robot End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	垂直多关节 Vertical multi-joint robot	允许扭矩 Allowable Torque	J4 43.8 N·m J5 43.8 N·m J6 19.6 N·m
轴数 Axis Number	6	惯性力矩 Inertia Moment	J4 1 kg·m ² J5 1 kg·m ² J6 0.2 kg·m ²
有效载荷 Payload	20kg	安装环境 Installation Environment	温度 Temperature 0~45 °C 湿度 Humidity 20%~80% RH (不结露) 灰尘 Dust <4.9mg/m ³ (0.5G)
重复定位精度 Repeat Positioning Accuracy	+0.03mm	其他 Others	避免易燃、腐蚀性气体和液体； Avoid flammable, corrosive gases and liquids; 避免接触水、油、粉尘等； Avoid contact with water, oil, dust, etc.;
最大伸展 Max. Extension	1668mm	注意 Notes	勿接近电气噪声源。 Do not approach electrical noise source.
防护等级 Protection Degree	IP67, ExdpxIIEI45b	电源容量 Power Capacity	±6kVA
本体重量 Robot Body Weight	270kg	电缆尺寸 Cable Size	580*600*960mm
机构角度范围 Motion Range	J1 ±172° J2 ±147°, -115° J3 +83°, -98° J4 ±167° J5 ±115° J6 ±360°	电柜重量 Cabinet Weight	130kg
最大速度 Max Speed	J1 155%/s J2 155%/s J3 172%/s J4 355%/s J5 355%/s J6 355%/s	电源 Source	三相四线:380V~1.0kV Three-phase four-wire
		安装方式 Installation	柜前、柜顶 Wall, Ceiling

QJRP6-2

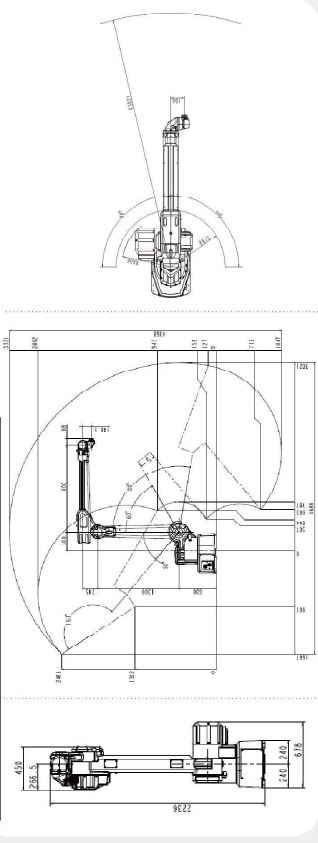
INDUSTRIAL ROBOT



- 正面之奇异点的腕部构造，可内置管线的手臂，使得同步跟踪喷涂的示教作业变得更加轻松；
- 采用总线结构，扩展应用方便，运行速度快。
- No front singularity wrist construction, optional built-in pipeline, making synchronous tracking spraying teaching job easier;
- Using bus-structure, convenient for expansion and high speed.

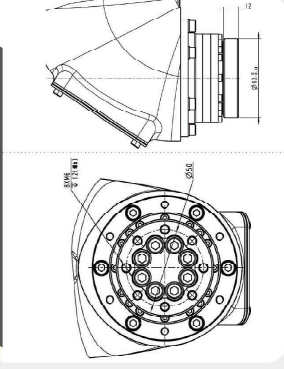
机器人外形尺寸和最大动作范围图

Figure Of Robot Shape Size And Maximum Motion Range



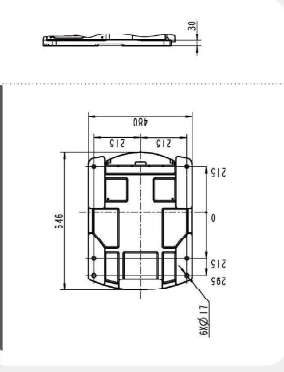
机器人末端安装尺寸图

Dimension Chart Of Robot End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



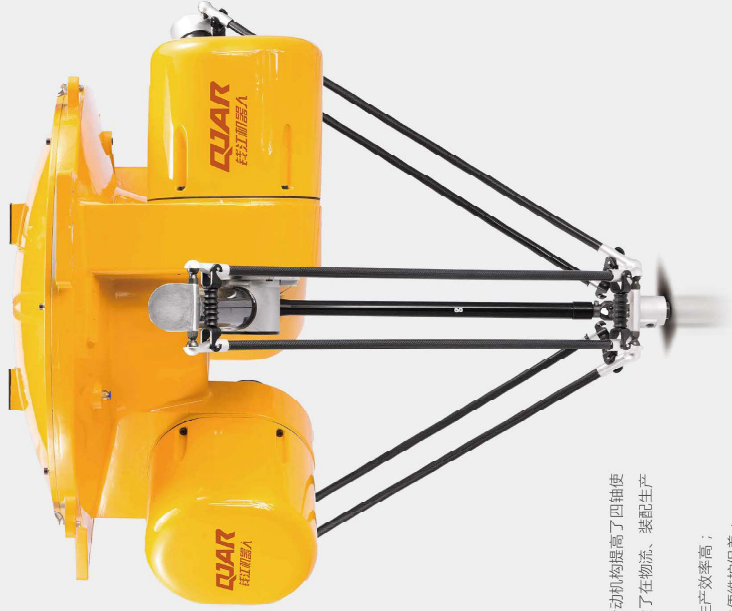
机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	垂直多关节 Vertical multi-joint robot	允许扭矩 Allowable Torque	J4 10.36 N·m J5 10.36 N·m J6 4.9 N·m
轴数 Axis Number	6	惯性力矩 Inertia Moment	J4 0.25 kg·m ² J5 0.25 kg·m ² J6 0.05 kg·m ²
有效载荷 Payload	6kg	安装环境 Installation Environment	温度 温度 湿度 湿度 振动 振动 其他 其他 其他
重复定位精度 Repeatability	±0.5mm	环境温度 Temperature	0~45℃
最大伸展 Maximum Extension	3021mm	相对湿度 Relative Humidity	20%~80% RH (不结露)
防护等级 Protection Degree	IP67, ExdpxIIBT4Gb	冲击 Shock	<4.9grms ² (0.5G)
本体重量 Robot Body Weight	400kg	其他 Others	避免易燃、腐蚀性气体和液体； 避免可燃性腐蚀性气体和液体； 避免接触水、油、粉尘等； 勿接近电器设备电源。 Do not approach electrical noise source.
机械限位范围 Motion Range	J1 49° J2 +102° / -52° J3 +80° / -80° J4 ±260° J5 ±270° J6 ±260°	电源容量 Power Capacity	3.9kVA
最大速度 Max Speed	J1 1097/s J2 1207/s J3 1097/s J4 3677/s J5 3677/s J6 3677/s	电箱尺寸 Cabinet Size	630*750*150mm
		电箱重量 Cabinet Weight	120kg
		电源 Source	三相四线380V / 10%
		安装方式 Installation	地面 地脚 Wall

QJRB3-1A

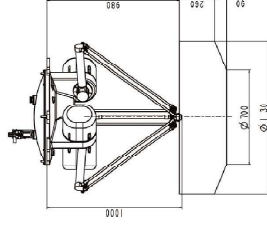
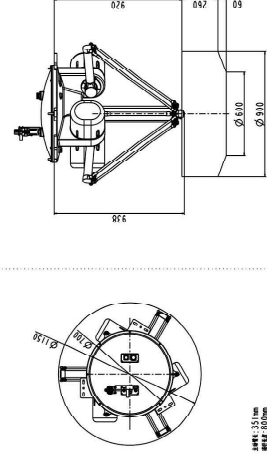
INDUSTRIAL ROBOT



- 它拥有独特球铰专利技术，四轴传动机构提高了四轴使用寿命，降低了四轴的转动惯量，扩大了在物流、装配生产线的适用范围。特点如下：
 - 最大线速度8m/s，速度快、刚性好、生产效率高；
 - 采用可冲洗的卫生设计（可选项），方便维护保养；
 - 集成视觉系统，出众的跟踪性能，可应用于食品包装生产线、药品分拣、电路板焊接、轻质产品包装、零件装配等。
- It has a unique patented overhead transmission with spherical hinge axis to improve the life and reduce the moment of inertia of axis; and expand the scope of logistics, assembly line. Features are as follows:
 - The maximum line speed of the robot is 8m/s, high speed, good rigidity, and high production efficiency.
 - With washable hygienic design (optional), easy maintenance.
 - The robot vision system integrated with superior tracking performance can be used in the food packaging production line, pharmaceutical sorting, circuit board welding, lightweight packaging parts assembly, and other industries.

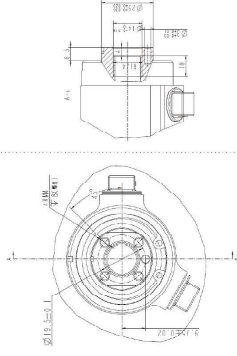
机器人外形尺寸和最大动作范围图

Figure Of Robot Shape Size And Maximum Motion Range



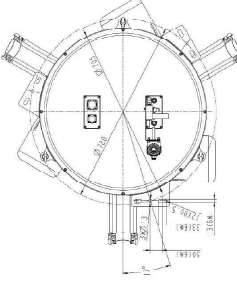
机器人末端安装尺寸图

Dimension Chart Of Robot End - Mounted



机器人底座安装尺寸图

Mounting Dimensions Of Robot Base



机器人基本规格表

Technical Specifications Of Robot

机构形态 Mechanism	并联机构 Parallel mechanism	工作范围 Motion Range	4500mm
轴数 Axis Number	4	最大线速度 Max Line Speed	8m/s
有效载荷 Payload	1kg/3kg	本体重量 Robot Body Weight	120kg
重复定位精度 Repeatability	±0.08mm	安装环境 Installation Environment	温度 0~45℃ 湿度 20%~80% RH(不结露) 振动 <4.9m/s ² (0.5G) 其他 Others
最大伸展距离 Max. Reach	900*320mm	防护等级 Protection Degree	避免易燃、易爆性气体和液体； 避免接触冰、油、粉尘等； 避免接触水、油、粉尘等； Avoid contact with water, oil, dust, etc.;
机械限位范围 Motion Range	J1 -3.6°, -9.4° J2 -3.6°, -9.4° J3 -3.6°, -9.4° J4 -3.60°	电源容量 Power Capacity	2.0kVA
最大速度 Max Speed	J1 1031°/s J2 1031°/s J3 1031°/s J4 2883°/s	电控柜尺寸 Cabinet Size	230*330*410mm
肘部主动轴长度 Active Arm Length	351mm	电控柜重量 Cabinet Weight	16kg
肘部连杆长度 Connecting Rod Length	800mm	电源 Source	单相三线220V, 0% Onn-phase three-wire
		安装方式 Installation	吊钩 Ceiling

焊接电源 WELDING SOURCE



QJ350R、QJ500R(水冷)

QJ350R、QJ500R(水冷)特点如下：

- 超凡的混合气体碳弧焊接性能
- 实现熔渣过度的精细控制；
- 具有熔深控制功能；
- 特别适用于钢结构、重工、压力容器等行业。

The features of QJ350R and QJ500R (water cooling) are as follows:

- Excellent welding properties of mixed gas carbon steel;
- Fine control of excessive droplet;
- With weld penetration control;
- Especially suitable for high-performance welding of carbon steel in structural steel, heavy industry, and pressure vessel.

QJ350RL

QJ350RL特点如下：

- 特殊短路过速控制；
- 可实现 0.8-3mm 的碳钢板、不锈钢、镀锌板的超低飞溅焊接具有熔深控制功能；
- 通过增加对工件的热输入，使得焊缝宽度扩大，减小焊缝的余高，改善了薄板焊缝成型；
- 不仅实现了小电流薄板领域的高速焊接，也实现了中高电流领域的低飞溅化。

QJ350RL features are as follows:

- Special short-circuit control;
- Ultra-low welding spatter for 0.8-3mm carbon steel plate, stainless steel, galvanized sheet;
- By increasing the thermal input on the workpiece, the width of the weld line is expanded, the weld height is reduced, and the weld forming is improved;
- High-speed low current welding on thin plates, low welding spatter for high current welding.



变位机 POSITIONER

- 变位机可实现水平、垂直±180°的回转，可将任何一段焊缝转到最适合的焊接位置，实现复杂零件的焊接，保证最好的焊接质量；
- 变位机的回转由机器人控制柜控制，焊接过程中，能实现机器人单独编程控制驱动，节省了空间。
- Positioner is able to achieve 180° of horizontal and vertical movement. The machine is able to rotate any workpiece to the most appropriate welding position, in order to achieve optimum welding results for complex parts;
- The rotation of the machine is controlled by the robot control cabinet. During the welding process, the control cabinet can coordinate the movement of the robot with the rotation machine, without the need of a separate control cabinet.

QJJP500-1 (单轴动力单元)



变位机基本规格表

Technical Specifications Of Positioner	
重复定位精度 Repeat Positioning	±0.1mm
额定负载 Rated Load	500kg
额定转速 Rated Speed	160°/s
机械限位范围 Motion Range	±360°
允许扭矩 Allowable Torque	969 N·m
卡轴定位直径 Pin Positioning Diameter	φ250
外形尺寸 Dimensions	340*310*445mm
重量 Weight	71kg

QJJP500-2 (单轴头尾)



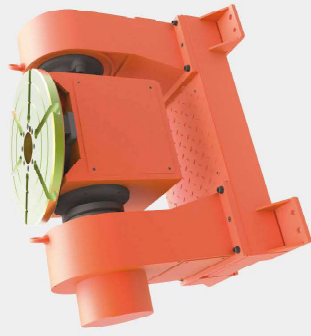
变位机基本规格表

Technical Specifications Of Positioner	
重复定位精度 Repeat Positioning	±0.1mm
额定负载 Rated Load	500kg
额定转速 Rated Speed	118°/s
机械限位范围 Motion Range	±360°
允许扭矩 Allowable Torque	989 N·m
卡轴安装长度 Pin Installation Length	1200-3000mm
外形尺寸 Dimensions	2300*700*200mm
重量 Weight	650kg

附加设备

变位机 POSITIONER

QJ2P500-1 (双轴U型)



变位机基本规格表

Technical Specifications Of Positioner	
重复定位精度 Repeat Positioning	±0.1mm
额定负载 Rated Load	300kg
外形尺寸 Size	1100*630*750mm
重量 Weight	580kg
卡具安装高度 Fixture Height	750mm
最大旋转速度 Max Speed	J1 108°/s J2 56.7°/s
允许扭矩 Allowable Torque	J1 1065N·m J2 680N·m

QJ2P500-2 (双轴L型)



变位机基本规格表

Technical Specifications Of Positioner	
重复定位精度 Repeat Positioning	±0.1mm
额定负载 Rated Load	500kg
外形尺寸 Size	1750*900*1300mm
重量 Weight	1750kg
卡具安装高度 Fixture Height	750mm
最大旋转速度 Max Speed	J1 44.5°/s J2 118°/s
允许扭矩 Allowable Torque	J1 1365N·m J2 680N·m

QJ3P500-1 (三轴回转)



变位机基本规格表

Technical Specifications Of Positioner	
重复定位精度 Repeat Positioning	±0.1mm
额定负载 Rated Load	500-2300kg
外形尺寸 Size	4000*1500*1900mm
卡具安装高度 Fixture Height	1200-3000mm
最大旋转速度 Max Speed	J1 57°/s J2 118°/s
重量 Weight	2500kg

附加设备

变位机、地轨 POSITIONER、Ground Rail

QJ3P500-2 (三轴翻转)



变位机基本规格表

Technical Specifications Of Positioner	
重复定位精度 Repeat Positioning	±0.1mm
额定负载 Rated Load	500-2000kg
外形尺寸 Size	3800*1800*1900mm
卡具安装长度 Fixture Length	1200-3000mm
最大旋转速度 Max Speed	J1 57°/s J2/J3 118°/s
重量 Weight	3000kg

QJ-AR500



地轨基本规格表

Technical Specifications Of Ground Rail	
最大行驶速度 Max Driving Speed	1.5m/s
最大加速度 Max Acceleration	1.2m/s ²
行程 Running Distance	2-30m
机器人安装高度 Mounting Height	450-500mm

- 本地轨具有速度快、精度高、运行平稳、维护简单的特性，能够很好的满足机器人轨迹的使用要求；
- 根据客户需要，可采用风琴罩或钣金防护，具有良好的防尘、防污、防水性；
- 针对于机床工件上下料、焊接、装配、喷涂、喷涂、检验、检测、锻造、锻压、热处理、金属切削加工、搬运、码垛等工作，满足工厂自动化生产线的实际需要。

• The rail has the characteristics of high speed, high accuracy, smooth operation and simple maintenance, It can be used well with the robot

• According to customer needs, It can be equipped with an organ cover or sheet metal for protection, It has good dustproof, antifouling arc waterproof.

• It can be applied to the application fields of machine tools, such as material, welding, assembly, spraying, inspection, casting, forging, heat treatment, metal cutting, handling, palletizing, etc.

控制柜 CABINET



常规柜体

- 节约空间体积；
 - 常规柜体在基本六轴驱动器基础上，可扩展至8轴；
 - 散热效率高；
 - 预留多种外门接口，扩展方便；
- Standard Cabinet
- Space saving;
 - Expandable to 8-axis on the basis of 6-axis;
 - Excellent heat-dissipation efficiency;
 - Variety of interfaces are available for ease of expansion;

大型柜体

- 大型柜体可扩展至9轴；
 - 散热效率高；
 - 预留多种外门接口，扩展方便；
 - 大型柜体内嵌防爆型机器人的气动部件，将防爆工艺直接安装至柜内，节约空间体积。
- Large cabinets
- Large cabinet expandable to 9-axis;
 - Excellent heat-dissipation efficiency;
 - Variety of interfaces are available for ease of expansion;
 - Can be used for housing the pneumatic parts of the explosion-proof robot. This allows the explosion-proof technology to be directly installed in the cabinet.

紧凑型柜体

- 小型、体积仅为375x421x211mm；
 - 轻量、环保，可靠性高，保养方便，接口方便，外部扩展接口丰富。
- Compact Cabinet
- Dimension 380x368x200mm;
 - Small, lightweight, environmental friendly, reliable, easy to maintain, variety of expansion ports.

控制器 CONTROLLER



QJRC-10



QJRC-20



I/O BOARD

- 钱江机器人控制器采用开发式系统构架，以及紧凑型的风扇X86工控机和高速伺服总线技术，支持机器视觉系统，支持多种应用工艺软件包，如弧焊应用软件包、喷涂应用软件包、码垛应用软件包、传送带跟踪软件包。
- Qianjiang robot controller is based on an open system architecture with a compact fanless X86 computer and EtherCAT bus with the capability of supporting vision system. The controller supports a variety of application process packages, such as arc welding, palletizing and conveyor belt tracking.

网络型示教器

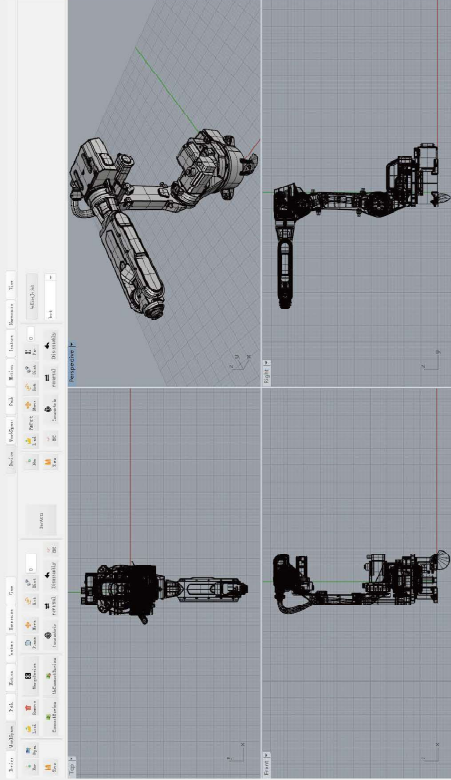
- 钱江机器人系统示教器根据分布网络的设计理念，采用服务端+多客户端的通讯构架方式，能够支持单示教盒适配多个机器人控制单元，便于工厂管理；
- 示教盒采用嵌入式+实时系统的系统架构方式，除了具备实时响应能力以及高性价比以外，还可以集成3D动画引擎，支持在线显示虚拟仿真动画，另外，还可以扩展多种人机交互方式。



- Qianjiang robot system is based on distribution network concept, using an architecture with single server communicating with multiple clients. This allows the support of single teaching pendant with multiple robot control unit, which is advantageous for plant management;
- The teach pendant adopts an embedded and real-time system architecture that provides a cost-effective way for real-time response ability. It can also be integrated with 3D animation engine, support for online virtual simulation animation, and in addition, extend the various modes of human-machine interaction.

附加设备

离线编程软件 OFF-LINE PROGRAMMING SOFTWARE



自定义导入

- 支持模型导入，并能对模型创建坐标系，装配，定义属性。
- Support model imports, able to create coordinate systems, assembly, and define attributes for models.

自由模拟机器人运动

- 支持工件路径的创建和机器人模拟运动在工作单元中进行；
- 支持创建路径，插入路径，删除路径，打断路径，可对路径进行反转，删除，合并等。
- Support the creation of workpiece path and the robot simulation movement in the work unit;
- Support the creation of paths, insert paths, delete paths, and interrupt paths. The path can be reversed, deleted, merged, etc.

自动设备检测

- 支持设备的碰撞检测；
- 支持机器人关节的各种运动。
- Support equipment collision detection;
- Support various movements of robot joints.

附加设备

自动导引运输车 AGV

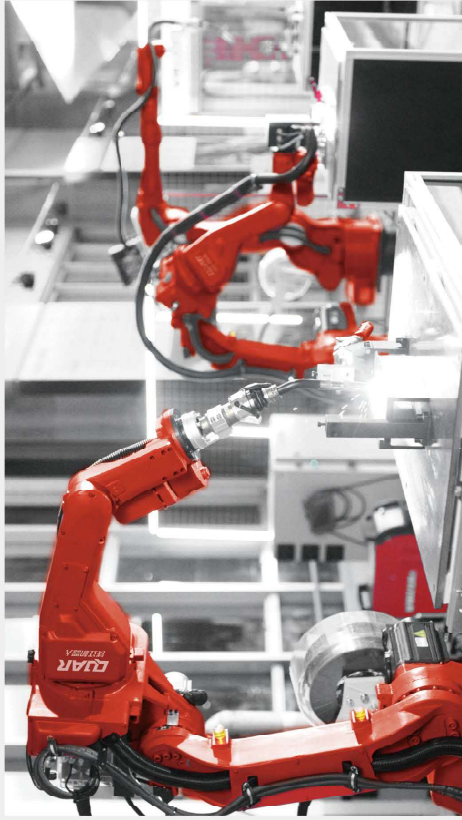


性能参数

- 载重：1000~1200kg
- 空载运行速度：0.7~0.9米/秒
- 满载运行速度：0.6~0.8米/秒
- 动力单元：锂离子电池
- 电池续航时间：大于8小时
- 遥控感应范围：50米
- Loading capacity: 1000~1200kg
- Empty load speed: 0.7-0.9m/s
- Full load speed: 0.6-0.8m/s
- Power unit: Li-Mn Battery
- Battery duration: longer than 8hours
- Range of remote controller is: 50 meters

焊接应用

WELDING APPLICATION



焊接制造工艺由于其工艺的复杂性、劳动强度、产品质量、批量等要求，使得焊接对于其工艺的自动化、机械化的要求极为迫切。实现机器人自动焊接，弧焊接机器人能够准确地完成各种直线、圆弧以及复杂曲线焊接作业，实现多种焊接工艺的自动化，能够极大地提高零部件生产的自动化水平及生产效率，同时使得生产更具有柔性，焊接质量也得到了保证。

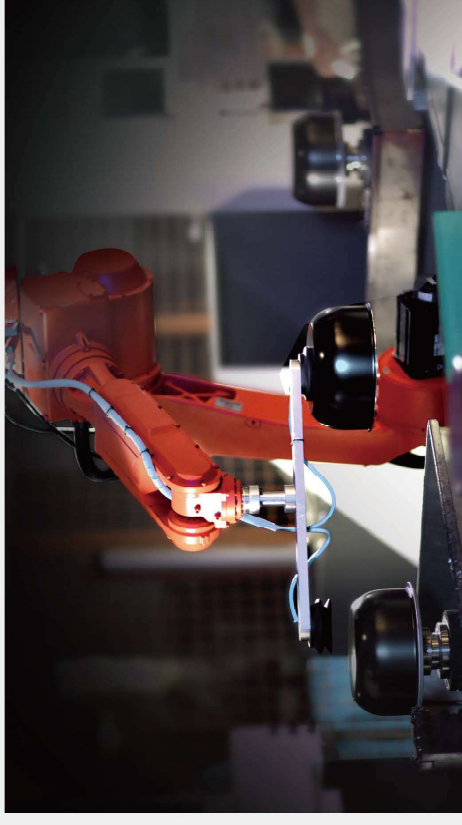
应用行业：汽车、汽车配件、摩托车、造船、机车车辆、锅炉、重型机械、铁路机车等制造行业。

产品优势：操作简单，能实现全自动焊接，效率高，无需人员操作，节省人力成本。焊接效果好，焊边平直均匀，性能稳定，无裂纹和气孔，硬度高且均匀。焊接发热小，高度一致，节省后续加工时间。

Due to the complexity of the process, labour intensive, product quality and high volume requirements, the automation of the welding process is one of the most pressing problems to be solved in the manufacturing industry. Arc welding robot can accurately complete all kinds of linear, curve and complex welding operation. The automated welding process can greatly improve the automation level, efficiency, flexibility, and quality of production lines.

Application Field: Automobile, auto parts, motorcycles, shipbuilding, rolling stock, boilers, heavy machinery, railway locomotives and other manufacturing industries.

Advantages: The advantages include simple operation, automatic welding, high efficiency, no welding operator, labor cost savings. The automated welding process provides flat and uniform welding seams, consistent results without cracks, pores, and having high and even hardness at the same time. The good welding quality reduces the requirement for post-process touch up.

搬运上下料应用
HANDING、FEEDING AND
UNLOADING APPLICATION

搬运机器人可进行自动搬运、机床上下料的工业机器人。

搬运机器人具备五大优点：

其一是可靠性好；

其二是24小时连续运行，效率高；

其三是易于操作和维护，可离线编程，大大的缩短现场调试时间；

其四是安全性高；

其五是柔性好。

Carrying robot is a kind of industrial robot which can automatically carry, loading and unloading of goods. The robot has five advantages:

(1) Good reliability;

(2) 24 hours of continuous operation with high efficiency;

(3) Easy to operate and maintain, significantly reduces the off-line programming and debugging time;

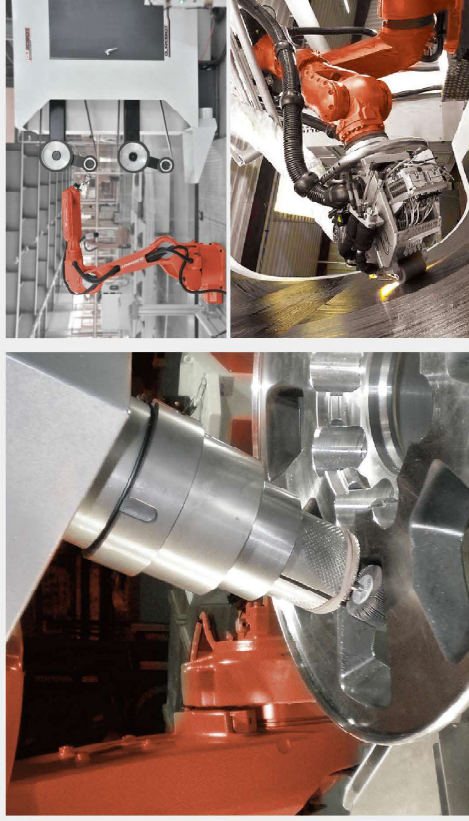
(4) Safety;

(5) Flexibility.

应用行业：广泛应用于机床、3C电子、家电、汽车、卫浴摩托车等行业。
产品优势：整线无人化，24小时连续运行，柔性好，适用范围广，速度快，节省人工成本。

Application Field: Widely used in machine tools, 3C electronics, home appliances, bathroom automobile, motorcycles and other industries.
Advantages: Unmanned production lines, 24 hours of continuous operation, flexibility, and a wide range of applications.

抛光打磨应用 POLISHING APPLICATION



机器人抛光系统，利用工业机器人自动夹取工件，在砂带机上进行工件表面的自动化打磨抛光，产量高、质量稳定，抛光工位隔离处理，全程无需人工接触作业，能有效实现金属粉尘的隔离和回收，改善工作环境，降低企业生产成本，杜绝了生产工人吸入金属粉尘造成的身体危害，提高了生产安全性。

应用行业：金属、家电、汽车、摩托车、厨具等行业。

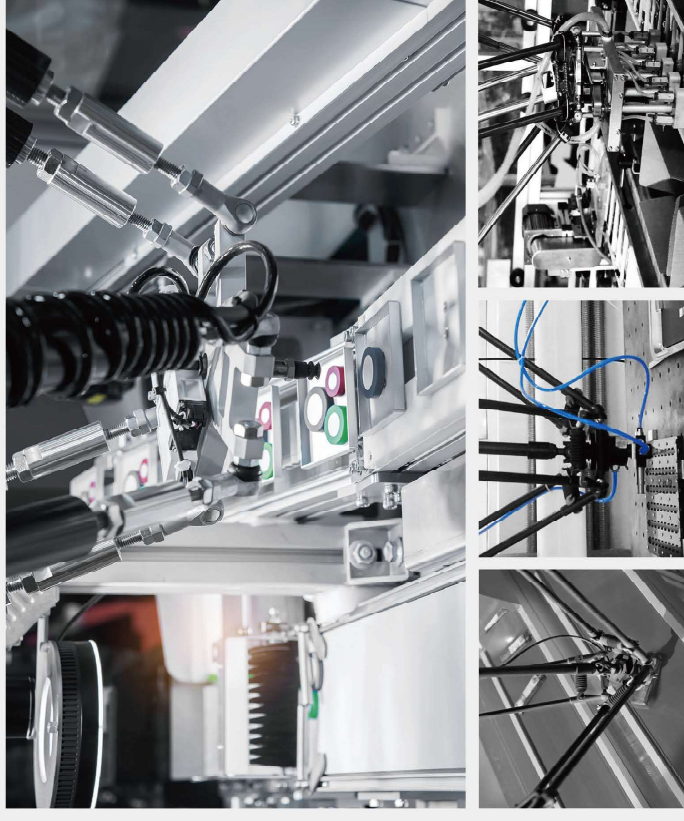
产品优势：快捷简单，示教简单，磨削质量高且一致性好，安全性高。

All kinds of metal casting products, such as bathroom faucets, door handles, automotive metal interior, etc., require surface polishing prior to electroplating and other follow-up processes. The traditional method is manual grinding, which requires high technical skills operators, long working hours, high labor intensity, with a poor working environment that causes high frequent occupational diseases. The automatic polishing system uses the industrial robot to automatically clamp the workpiece and perform surface polishing processes. This provides high yield, stable quality, and able to effectively isolate and recover metal dust in order to improve the working environment and reduce the production cost.

Application Field: Metal parts, home appliances, automotive, motorcycle and cookware.

Advantage: Quick clamping, simple teaching, combined with active constant force controller and articulated arm teaching program, the system can be used by workers with no previous experience. The grinding quality is high and the consistency is good. The active constant controller connect with the grinding tool can maintain constant output that gives consistent surface quality.

分拣应用 SORTING APPLICATION



分拣机器人具有速度快、精度高和刚性强的特点。

该机型搭配传感器来捕捉目标物体初始位置、移动速度，可实现目标物体的动态拾取、放置、装盒等功能；搭配视觉系统可捕捉产品外观，分辨产品合格与否，并剔除残次品，实现产品的分拣。

应用行业：食品、药品、3C电子、洗浴用品等行业。

产品优势：操作简单，能实现全自动分拣，效率高，无需人员操作，节省人力成本。

It has the characteristics of high speed, high precision, and strong rigidity. It can meet the needs of most work occasions. The model captures the target object through sensors or vision system, completes the dynamic tracking, pick-up, and placement of the object, and realizes the functions of packing, material sorting, handling, and assembly.

Application Field: Food, medicine, 3C toiletries.

Advantages: Simple operation, automatic sorting, high efficiency, no operator, labor cost savings.

喷涂应用 PAINTING APPLICATION



采用各种激光、视觉成像和光学传感等技术，对通过的工作外形进行自动识别，机器人自动生成喷涂程序，无需人工编程，实现自动喷涂，工作范围可达到：5000 x 3000 mm。

应用行业：汽车、家具、家电、摩托车、塑料等行业。

产品优势：

1. 柔性化好，可喷漆、喷粗、涂胶；
2. 提高喷涂质量和材料使用率；
3. 易于操作和维护，可离线编程，大大缩短现场调试时间；
4. 设备利用率高，可达90%-95%；
5. 工作范围大。

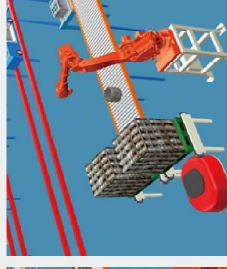
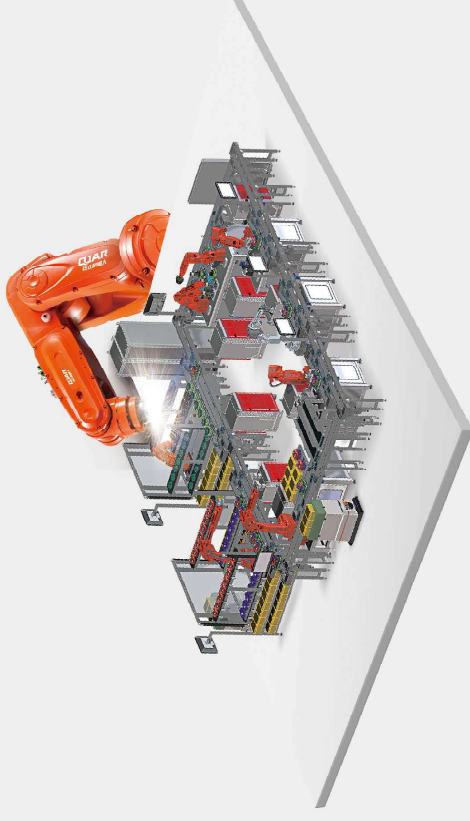
The system is able to achieve automatic spraying with self-generating spraying sequence without manual programming by using laser, vision and optical sensor technology. Workspace of up to 5000x3000mm.

Application Field: Automotive, furniture, home appliances, motorcycle and plastics.

Advantages:

- (1) Flexible, can be used for paint spraying and adhesive application;
- (2) Improve spraying quality and reduce wastage;
- (3) Easy to operate and maintain, capable of off-line programming, significantly reduced on-site configuration time;
- (4) Excellent equipment utilization rate, up to 90%-95%;
- (5) Large workspace.

智能工厂 INTELLIGENT FACTORY



本项目位于浙江温岭东部产业集聚区，占地面积664亩，建筑面积27万平方米，共使用钱江机器人500多台，是国内领先的高端复合金属炊具智能新工厂，为整个炊具行业树立新标杆，引领中国高端复合炊具行业的整体发展。

The project is located in Zhejiang Wenling east industrial area, covers an area of 664 mu, building area of 270 thousand square meters, a total of more than 500 units using Qjarjiang robot, is a new international leading high-end and smart factory for composite metal cookware, setting new standard bar for the entire cookware industry, leading the overall development of high-end composite cookware industry China.

码垛应用 PALLETIZING APPLICATION



机器人码垛系统是专业的自动化搬运码垛设备，替代人工将不同形状尺寸的包装货物，整齐、自动地码在托盘上或生产线上等，可全天候作业，能迅速提高生产效率和生产量，同时能减少人工搬运造成的工伤。

应用行业：饮料、乳业、食品、啤酒、石化、药品等生产线的搬运、拆装、摆放等方面；物流行业的装罐与卸罐等方面；尤其是在箱子、袋类装载物以及较为规则的批量生产线上。

产品优势：速度快、效率高，节省人工，占地空间小，操作方便，适用性强，能耗低。

The robot palletizing system is an automatic palletizing equipment. It replaces manual packing of goods of different shapes and sizes, automatic coding on the pallet or production line, non-stop operation, can quickly improve the efficiency of production and output, and reduce the errors caused by manual handling. Application scope: daily, beverage, food, beer, petrochemical, pharmaceutical production line handling, disassembly, placement and other aspects of the logistics industry; loading and unloading etc.; especially the mass production line of loading goods into boxes, bags, and other high volume production lines.

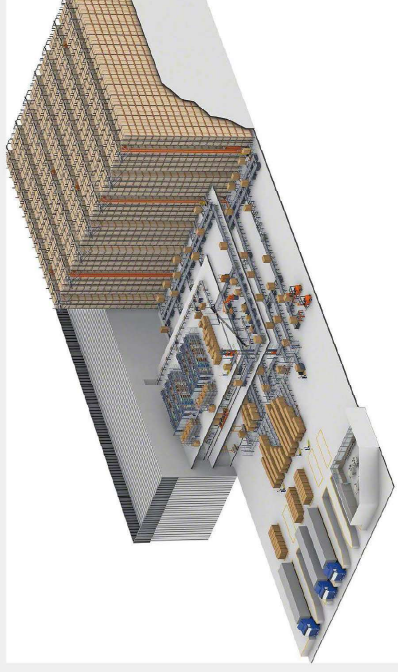
Application Field:

Dairy, beverage, food, beer, petrochemical and pharmaceutical production line handling, disassembly, placement, and other aspects of logistics industry; loading and unloading etc; especially the mass production line of loading goods into boxes, bags, and other high volume production lines.

Advantages:

High speed, high efficiency, labor saving, small space occupation, easy operation, flexible, low energy consumption.

立体仓库 STEREOSCOPIC WAREHOUSE



1. 高密度智能存储穿梭，能够实现四向行驶、智能换层、避让调度；
2. 智能多层堆垛穿梭，能够实现多层堆垛、智能分拣；
3. 高速输送机或立体搬运自行装卸设备，空中立体搬运配送，自身机械手装卸。

适用行业

多量少样：食品、饮料、化工等单品种批量大、品项相对单一行业。

冷库作业：减少低温作业时间，提高工作效率和作业安全性。

精细化管理：对物品批次有严格要求，需要先进先出作业管理的仓库。

增加库容：存储空间有限，需要最大化利用空间的仓库。

1. High-density intelligent storage shuttle, can achieve four-way maneuver, intelligent layer change, and collision avoidance management;
2. Intelligent multilayer stacking shuttle can achieve multi-layer stacking and intelligent sorting;
3. High-speed conveyor or off-the-ground three-dimensional handling, mechanical arm for loading and unloading.

Application

Large quantity, less variety: Large quantities of food, beverage, chemical and other industry with low product variety.

Cold storage operation: Reduce the low-temperature operation time, improve work efficiency and operation safety.

Deadline management: Strict requirements for batching of goods, first in and first out warehouse management.

Increase storage capacity: limited storage space, the need to maximize the use of warehouse space.