



ae配天机器人
SMARTER · STRONGER

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关于我们

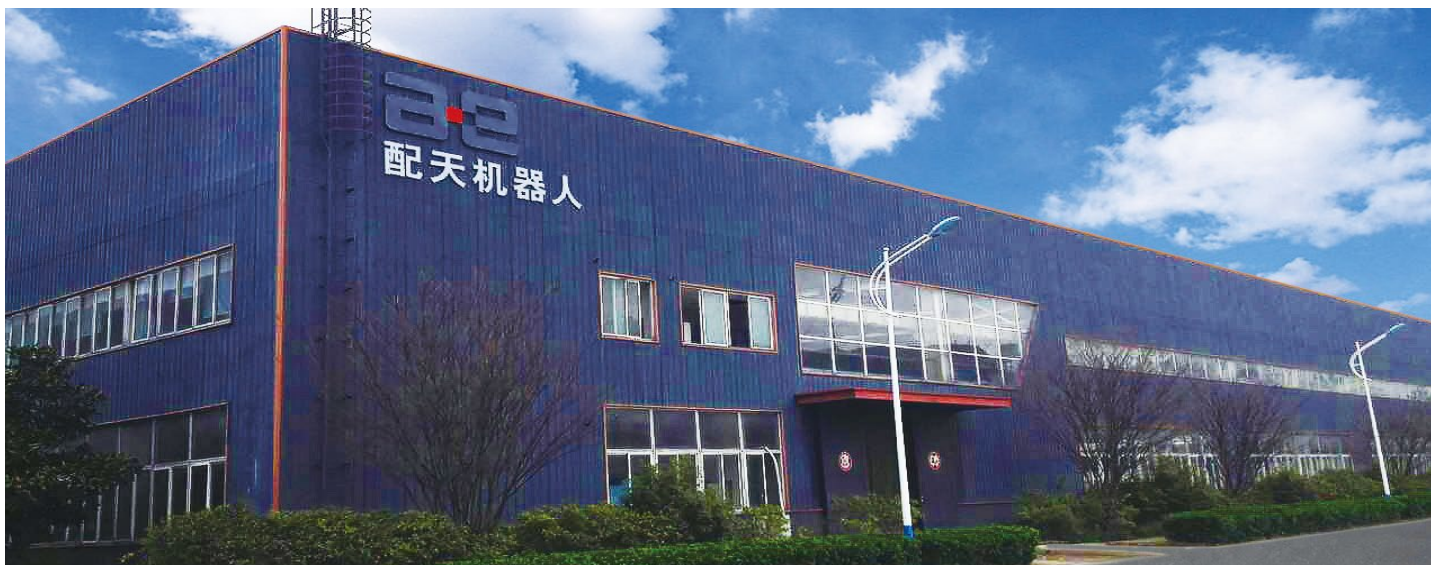
ABOUT US

公司简介

COMPANY PROFILE

配天机器人技术有限公司是大富配天集团旗下专注于工业机器人、核心零部件及行业自动化产线解决方案提供商，总部位于安徽省蚌埠市高新区。公司业务包括工业机器人本体及核心部件（伺服驱动、伺服电机等）产品的生产、销售、维修服务、技术支持和培训，同时提供机器人控制系统解决方案、成套柔性制造设备及系统、机器人应用行业自动化解决方案。公司总投资 5000 万元，厂房建筑面积 18400 平方米，可年产 5000 台智能工业机器人。公司在北京、安徽、深圳均设立研发中心，拥有研发人员逾 200 名，其中硕士学历占 75%，博士学历占 2%，这些研发人员中清华占 17%，北大占 4%，海归占 3%。研发中心经过多年的技术积累，在该技术领域专利保有量已达 700 余项。

Peitian Robotics Co., Ltd. (Peitian Robotics), based in the high-tech zone of Bengbu, Anhui Province, is a provider of robots, associated components and enterprise level automatic and flexible manufacturing solutions. Peitian Robotics is part of the TATFOOK A&E Group. Responsible for sales, maintenance, tech support, training and production of industrial robots and their core parts (servo drives, motors etc.), Peitian Robotics also provides robot control systems and solutions, robot application solutions, complete sets of automatic equipment, automated production lines and flexible manufacturing devices and systems. With a total investment of 50 million yuan RMB and a plant construction area of 18400 square meters, the annual output of Peitian Robotics can reach 5000 robots. Peitian Robotics has three R&D centers in Beijing, Anhui and Shenzhen, over 200 research experts and more than 700 patents. 75% of the experts hold postgraduate degrees, and 2% have PhDs. These experts also make up 17% graduated from Tsinghua University, 4% from Peking University and 3% from prestigious universities abroad.



集团介绍

GROUP INTRODUCTION

大富配天集团是一家涉足高端制造、智能装备、新能源汽车、健康养生等多个行业领域的大型集团公司，在北京、上海、广东、安徽、内蒙、四川、贵州等地拥有 12 个生产基地、6 个研发中心，厂房面积达 120 万平米。集团目前控股大富科技、配天智造等多家上市公司。集团致力于成为精密机电产品提供商、工业装备提供商、端到端的网络工业技术提供商的同时，成为自然生态的伙伴、可持续发展的构成要素、天人合一的践行者。集团长期致力于整体打造具备垂直整合能力的机电共性制造、工业装备技术和网络工业设计的三大战略平台，持续不断的为客户创造价值，提供“更节约、更高效、更精密、更专业”的解决方案。

TATFOOK A&E Group is a large group corporation involved in various industries such as high-end manufacturing, intelligent equipment, health preservation and so on. The Group has 12 manufacturing bases and 6 R&D centers in Beijing, Shanghai, Guangdong, Anhui, Inner Mongolia, Sichuan and Guizhou, with plant area of about 1.2 million square meters. TATFOOK A&E Group possesses several listed companies like SHENZHEN TATFOOK TECHNOLOGY CO., LTD. and SHENZHEN A&E INTELLIGENT EQUIPMENTS CO., LTD.. TATFOOK A&E Group endeavors to be a leading design, manufacturing and total solution provider in precision electro-mechanical components and products, industrial machine tools, end-to-end network industrial technologies. While exploring the advances in manufacture world, the Group are also an element of sustainable development and an environment-friendly enterprise on the Chinese principle of nature-human balance.





研发中心 R&D CENTER

北京研究院

2010 年成立的北京研究院，系国家级高新技术企业。公司主要从事工业机器人、数控系统、伺服系统、机器视觉以及智能自动化解决方案的设计开发。公司研发实力雄厚，研发团队中硕士以上学历人员超过 90%，多数毕业于清华、北大、北航、哈工大等国内一流高等院校的尖端人才。

深圳研究院

深圳研究院成立于 2011 年，致力于提供卓越的工业智能化产品。公司提供基于工业机器人、高端数控机床、伺服系统等智能化装备及其解决方案。

蚌埠研究院

蚌埠研究院专注于定制化精密设备以及自动化生产线的设计与开发。公司产品定位于中高端，为客户提供持续的技术服务与支持。

昆山办事处 KUNSHAN OFFICE

配天机器人昆山办事处位于江苏省昆山市清华产业园科技大厦，致力于工业机器人本体及核心零部件的销售、维修服务、技术支持和培训，随时为客户提供优质服务。

Beijing R&D Center

Beijing R&D Center was established in 2010, awarded by the government as “National High-Tech Enterprise”. It mainly engages in the design and development of industrial robots, CNC systems, servo systems, machine vision and intelligent automation solutions. Beijing R&D Center has strong technological development force and professional R&D team, most of which graduated from the prestigious universities and 90% of which with postgraduate degrees.

Shenzhen R&D Center

Established in 2011, Shenzhen R&D Center aims at making the better intelligent products. It provides industrial robots, high-end CNC machine tools, servo systems and other intelligent equipment and solutions.

Bengbu R&D Center

Bengbu R&D Center concentrates its business on customized precision equipment and automated production lines. It targets at high-end products, providing clients with continuous technical service and support.

The Kunshan Office, located in Tsinghua University Science Park of Kunshan, Jiangsu Province, is committed to the sales, maintenance, tech support and training of industrial robots and their core parts, at any time to provide quality services to customers.

大富重工产业园位于安徽省蚌埠市高新区，其拥有整洁的花园式厂区以及标准化大跨度车间，配天机器人技术有限公司坐落于此工业园内。为了满足国内外用户对产品性能的高要求，集团持续不断地从美国、德国、日本等国引进世界一流的生产设备以扩大生产能力，强化产品品质。公司制定了一套严格的生产流程及检验标准，确保产品在出厂前的每一个流程都得到高标准、严要求的把控，生产的每一件产品都能让顾客放心。

Located in the high-tech zone of Bengbu, Anhui Province, Anhui TATFOOK heavy industrial park has neat garden-style plant buildings and standard large-span production workshops. To meet the customers' high demand, it continuously imports world-class equipment to expand production capacity and enhance products quality. To ensure the quality of each product and be responsible for the clients, Peitian Robotics drew up a set of strict procedures of manufacturing with test standards corresponding to each step, which could ensure every process before the product leaving the factory meets high standards and strict requirements, thus customer satisfaction is assured.





企业文化

CULTURE

愿景

致力于成为世界领先的工业母机及智能化精密工业关键部件提供商，进而成为端到端网络工业技术和解决方案提供商。

使命

与客户和合作伙伴结盟，整合我们独特的能力和优势服务于我们的客户，确保公司价值最大化，与中国装备制造及精密机电产业一起成长，为中国制造走向中国创造奠定基础。

核心价值观

持续遵循规律、不断科学创新、精诚团队合作
拥有核心能力、成为行业领先、永恒良性发展

VISION

Aim to be a world leading provider on industrial machine tools, intelligent precision electromechanical products, so as to provide end-to-end network industrial technology and solutions.

MISSION

In collaboration with our customers and partners, the company integrates its unique capabilities and advantages for the better service to our customers to ensure the maximization of the company value. The company grows with China’s equipment manufacture industrial and builds a solid foundation from made-in China to created-in-China.

CORE VALUES

We continue to ensure our strategies and actions following the objective laws, and dedicate our efforts on scientific innovation. The company aims to be the industry leader and seek long-lasting sustainable development with our core competence, sincere collaboration and strong teamwork.



荣誉

HONOR



获奖
AWARD

配天机器人自上市以来，凭借其高标准、严要求的整体产品指标，获得 30 余项大奖

Since its establishment, Peitian Robotics has won more than 30 awards with its high standards and strict requirements for products



应用创新奖 (AIR6L-A)
Application Innovation Award



技术创新奖
Technical Innovation Award



最佳人气产品奖
Best Popularity Product Award



最佳工业设计奖 (AIR6-A)
Best Industrial Design Award



优秀国内机器人品牌奖
Excellent Robotic Brand Award



技术创新奖 (控制系统)
Technology Innovation Award



智能集成奖
Intelligent Integration Award



最具创新产品奖 (AIR6L-A)
Most Innovative Product Award



2015 金球奖 (机器视觉)
Golden Globes Award



2016 金球奖 (控制系统)
Golden Globes Award



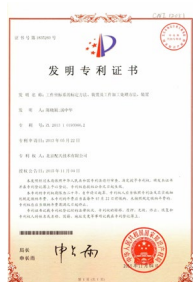
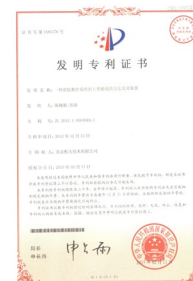
2017 金球奖 (控制系统)
Golden Globes Award



2018 金球奖 (控制系统)
Golden Globes Award

专利 PATENT

配天机器人目前持有 700 余项专利（其中 PCT 国际专利达 300 余项），及 40 余项软件著作权
Peitian Robotics holds over 700 patents [about 300 PCT international patents] and over 40 software copyrights





参与制定国家标准

PARTICIPATE IN ESTABLISHING NATIONAL STANDARDS

配天机器人目前已参与制定 30 余项国家标准

Peitian Robotics has been involved in the development of more than 30 national standards

工业机器人生命周期风险评价方法

Life-cycle risk assessment method for industrial robots

工业机器人控制程序性能评估与测试方法

Performance evaluation and testing methods for industrial robot control program

工业机器人机械环境可靠性要求和测试方法

Reliability requirements and test methods for mechanical environment of industrial robots

机器人噪声试验方法和限值

Test method and limit of robot noise

工业机器人电磁兼容设计规范

Electromagnetic compatibility design specification for industrial robots

工业机器人软件开发平台的 XML 标准

XML standard for industrial robot software development platform

工业机器人云服务平台数据交换规范

Data exchange specification for industrial robot cloud service platform

工业机器人柔性控制通用技术要求

General technical requirements for flexible control of industrial robots

工业机器人机器视觉集成技术条件

Integration technical conditions for machine vision of industrial robots

工业机器人的通用驱动模块接口标准

Universal driver module interface standard for industrial robots

产品

PRODUCTS



工业机器人 INDUSTRIAL ROBOT

更先进、更精准、更安全的工业机器人
The more advanced, more precise and safer industrial robots



型号 Type		AIR3SC-400		AIR6SC-600		AIR6SC-750		AIR3-560	AIR8-710 ^②	AIR7-920	AIR12-940	AIR110-1210	AIR10-1420	AIR6-1450	AIR20-1700	AIR25-1700	AIR12-2000-HI	AIR20-2000	AIR50-2230	AIR165-2750
轴数 Axes		4		4		4		6	6	6	6 (3/4) ^③	6	6	6	6	6	6	6	6	6
最大负载 Payload		3Kg		6 Kg		6 Kg		3Kg	8Kg	7Kg	12Kg	10Kg	10Kg	6Kg	20Kg	25Kg	12Kg	20Kg	50Kg	165Kg
机器人本体 Manipulator	重量 Weight	14.4Kg		20.1Kg		21.2Kg		23Kg	49Kg	53Kg	83.5Kg	87Kg	160Kg	120Kg	260Kg	294Kg	300Kg	280Kg	550Kg	1200Kg
	最大运动范围 Reach	400mm		600mm		750mm		560mm	710mm	920mm	947mm	1211mm	1420mm	1450mm	1702mm	1702mm	2001mm	2001mm	2238 mm	2750mm
定位精度 Positioning accuracy	位置重复 定位精度 Position repeatability	轴 1 + 轴 2 Axis 1 + Axis 2	±0.01mm	轴 1 + 轴 2 Axis 1 + Axis 2	±0.015 mm	轴 1 + 轴 2 Axis 1 + Axis 2	±0.015 mm	±0.02mm	±0.02mm	±0.02mm	±0.03mm	±0.035mm	± 0.02mm	± 0.06mm	±0.03mm	±0.03mm	±0.03mm	±0.03mm	±0.06mm	±0.1mm
		轴 3 Axis 3	±0.01mm	轴 3 Axis 3	±0.01mm	轴 3 Axis 3	±0.01mm													
		轴 4 Axis 4	±0.005°	轴 4 Axis 4	±0.005°	轴 4 Axis 4	±0.005°													
IP 等级 Ingress Protection		IP20		IP20		IP20		IP65	IP67	IP67	IP67/ISO 5 ^④	IP67/ISO 5 ^⑤	IP54 (腕部 IP67) (Wrist:IP67)	IP54 (腕部 IP67) (Wrist:IP67)	IP54 (腕部 IP67) (Wrist:IP67)	IP54 (腕部 IP67) (Wrist:IP67)	IP54 (腕部 IP67) (Wrist:IP67)	IP54 (腕部 IP67) (Wrist:IP67)	IP54 (腕部 IP67) (Wrist:IP67)	IP54
安装方式 Mounting		地装 Floor		地装 Floor		地装 Floor		地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	地装 壁装 吊装 Floor Wall Ceiling	
运动范围 Working range	轴 1 ^① Axis 1 rotation	-136°/+136°		-137°/+137°		-134°/+134°		-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-170°/+170°	-185°/+185°	-170°/+170°
	轴 2 Axis 2 arm	-141°/+141°		-150°/+150°		-150°/+150°		-110°/+120°	-100°/+135°	-100°/+135°	-100°/+135°	-100°/+135°	-85°/+150°	-95°/+155°	-95°/+155°	-95°/+155°	-95°/+155°	-95°/+155°	-35°/+145°	-60°/+85°
	轴 3 Axis 3 arm	150mm		200mm/300mm (伸缩罩：170mm/270mm) (With bellows:170mm/270mm)		200mm/300mm (伸缩罩：170mm/270mm) (With bellows:170mm/270mm)		-108°/+152°	-120°/+156°	-120°/+156°	-120°/+156°	-120°/+156°	-95°/+170°	-120°/+180°	-95°/+170°	-95°/+170°	-95°/+170°	-95°/+170°	-120°/+170°	-120°/+155°
	轴 4 Axis 4 wrist	-360°/+360°		-360°/+360°		-360°/+360°		-200°/+200°	-200°/+200°	-200°/+200°	-200°/+200°	-200°/+200°	-195°/+195°	-155°/+155°	-185°/+185°	-185°/+185°	-185°/+185°	-185°/+185°	-350°/+350°	-360°/+360°
	轴 5 Axis 5 bend	——		——		——		-118°/+118°	-135°/+135°	-135°/+135°	-135°/+135°	-135°/+135°	-135°/+135°	-120°/+120°	-135°/+135°	-135°/+135°	-135°/+135°	-135°/+135°	-120°/+120°	-125°/+125°
	轴 6 Axis 6 turn	——		——		——		-350°/+350°	-360°/+360°	-360°/+360°	-360°/+360°	-360°/+360°	-360°/+360°	-360°/+360°	-360°/+360°	-400°/+400°	-400°/+400°	-400°/+400°	-400°/+400°	-360°/+360°
运动速度 Rotation rate	轴 1 Axis 1 rotation	600°/s		400°/s		400°/s		450°/s	380°/s	380°/s	310°/s	310°/s	200°/s	230°/s	175°/s	220°/s	175°/s	175°/s	180°/s	125°/s
	轴 2 Axis 2 arm	600°/s		650°/s		650°/s		450°/s	350°/s	320°/s	320°/s	320°/s	200°/s	230°/s	175°/s	220°/s	175°/s	175°/s	180°/s	113°/s
	轴 3 Axis 3 arm	1100mm/s		1100mm/s		1100mm/s		525°/s	480°/s	390°/s	350°/s	350°/s	200°/s	230°/s	170°/s	170°/s	170°/s	170°/s	180°/s	125°/s
	轴 4 Axis 4 wrist	2600°/s		2300°/s		2300°/s		600°/s	490°/s	490°/s	490°/s	490°/s	370°/s	430°/s	360°/s	375°/s	355°/s	355°/s	260°/s	180°/s
	轴 5 Axis 5 bend	——		——		——		600°/s	565°/s	565°/s	565°/s	565°/s	370°/s	430°/s	360°/s	465°/s	355°/s	355°/s	255°/s	175°/s
	轴 6 Axis 6 turn	——		——		——		800°/s	815°/s	815°/s	815°/s	815°/s	815°/s	600°/s	630°/s	600°/s	755°/s	300°/s	600°/s	370°/s
适用控制柜 Controllers		inCube2S		inCube2S		inCube2S		inCube20/21	inCube20	inCube 20	inCube 20	inCube 20	inCube21	inCube20	inCube12	inCube22	inCube12/22	inCube12/22	ARC4-50	ARC4-165

① 若去除机械限位，运动范围可达 -180°/+180°。
If the mechanical limit is removed, the working range can reach -180° /+180°.

② 该机型为第二代 AIR8-710B 的参数 & 图纸，如有 AIR8-710A 的需求请联系本公司。
This model is the parameter & drawing of the second generation AIR8-710B. If you need AIR8-710A, please contact our company.

③ AIR12-940 的 3 轴版本指保留原 6 轴版本机体的 J2、J3 和 J5；4 轴版本可在 3 轴版本上选择增加 J1、J4 或 J6。本体重量会减轻，其他性能参数不变。
The 3-axis version of AIR12-940 refers to retaining the original 6-axis version body J2, J3 and J5; 4-axis version You can optionally add J1, J4, or J6 to the 3-axis version.Body weight will be reduced, other performance parameters remain unchanged.

④⑤ 如需 ISO 5 版本，请联系销售。
For ISO 5 version, please contact sales.



机器人控制系统 ROBOT CONTROL SYSTEM



搭载配天全自主开发的机器人控制系统软件 ARCS，
高效满足机器人对高速度、高精度运动控制性能及
高可靠性的需求，实现更精确的轨迹控制及更快节
拍的应用执行 。

Equipped with the system software ARCS with independent propetry
rights, the robot controller developed by Peitian, perfectly meets the
demands for higher speed, higher precision and higher reliability of
the robot, thus provides more accurate trajectory control and higher
production efficiency for customers .

型号 Type	inCube12	inCube20/21	inCube22	inCube2S	ARC4-50	ARC4-165	ARC5-10	ARC5-25
对应机器人本体型号 Robots Applicable	AIR20-1700 AIR12-2000-HI AIR20-2000	AIR3-560 AIR8-710 AIR7-920 AIR12-940 AIR110-1210 AIR10-1420 AIR6-1450	AIR25-1700 AIR12-2000-HI AIR20-2000	AIR3SC-400 AIR6SC-600 AIR6SC-750	AIR50-2230	AIR165-2750	AIR3-560 AIR8-710 AIR7-920 AIR10-1420 AIR6-1450	AIR25-1700 AIR12-2000-HI AIR20-2000
尺寸（宽 × 高 × 深） Dimension (Width×Height×Depth)	445×223×500 (mm)	420×133×472 (mm)	420×151×455 (mm)	364×135×283 (mm)	666×1002×553 (mm)	800×1170×593 (mm)	550×688×370 (mm)	550×688×370 (mm)
重量 Weight	35kg	22kg	19kg	11kg	180kg	270kg	63kg	72kg
保护等级 Protection	IP20	IP20	IP20	IP20	前部 Front IP54 后部 Rear IP23	前部 Front IP54 后部 Rear IP23	前部 Front IP54 后部 Rear IP20	前部 Front IP54 后部 Rear IP20
运行环境温度 Temperature range	0~45℃	0~45℃	0~45℃	0~45℃	0~40℃	0~40℃	0~45℃	0~45℃
输入电源 Power supply	单相 Single- phase 220VAC -10%~+10% 49~ 61Hz	单相 Single- phase 220VAC -10%~+10% 49~ 61Hz	单相 Single- phase 220VAC -10%~+10% 49~ 61Hz	单相 Single- phase 220VAC -10%~+10% 49~ 61Hz	三相 Three- phase 380VAC -10%~+10% 49~ 61Hz	三相 Three- phase 380VAC -10%~+10% 49~ 61Hz	单相 Single- phase 220VAC -10%~+10% 49~ 61Hz	单相 Single- phase 220VAC -10%~+10% 49~ 61Hz
最大输入功率 Max. input power	3.5KVA	2.2KVA	3.5KVA	2.2KVA	7KVA	13KVA	2.2KVA	3.5KVA



SCARA 机器人

SCARA ROBOT



AIR3SC-400



AIR6SC-600



AIR6SC-750

型号 Type		AIR3SC-400	AIR6SC-600	AIR6SC-750
轴数 Axes		4	4	4
负载 Load	额定 Rated load	1Kg	2Kg	2Kg
	最大 Limiting load	3Kg	6Kg	6Kg
轴 4 允许装载的惯量 Allowable moment of inertia of J4	额定 Rated inertia	0.005 Kg·m ²	0.01Kg·m ²	0.01Kg·m ²
	最大 Limiting inertia	0.05 Kg·m ²	0.12Kg·m ²	0.12Kg·m ²
机器人本体 Manipulator	重量 Weight	14.4Kg	20.1Kg	21.2Kg
	最大运动范围 Reach	400mm	600mm	750mm
重复定位精度 Position repeatability	轴 1+ 轴 2 Axis 1+Axis 2	±0.01mm	±0.015mm	±0.015mm
	轴 3 Axis 3	±0.01mm	±0.01mm	±0.01mm
	轴 4 Axis 4	±0.005°	±0.005°	±0.005°
IP 等级 Ingress Protection		IP20	IP20	IP20
安装方式 Mounting		地装 Floor	地装 Floor	地装 Floor
运动范围 Working range	轴 1 Axis 1	-136°/+136°	-137°/+137°	-134°/+134°
	轴 2 Axis 2	-141°/+141°	-150°/+150°	-150°/+150°
	轴 3 Axis 3	150mm	200mm/300mm (伸缩罩: 170mm/270mm) (With bellows:170mm/270mm)	200mm/300mm (伸缩罩: 170mm/270mm) (With bellows:170mm/270mm)
	轴 4 Axis 4	-360°/+360°	-360°/+360°	-360°/+360°
运动速度 Rotation rate	轴 1 Axis 1	600°/s	400°/s	400°/s
	轴 2 Axis 2	600°/s	650°/s	650°/s
	轴 1+ 轴 2 Axis1+Axis2	6000mm/s	7300mm/s	7300mm/s
	轴 3 Axis 3	1100mm/s	1100mm/s	1100mm/s
	轴 4 Axis 4	2600°/s	2300°/s	2300°/s
小臂接口 Small arm interface	电气接口 Electrical interface	20 路 IO	20 路 IO	20 路 IO
	气路接口 Air plug interface	2 路 φ6	2 路 φ6	2 路 φ6
适用控制柜 Controllers		inCube2S	inCube2S	inCube2S
安装条件 Mounting conditions	环境温度: 0~40℃ Ambient temperature: 0~40℃			
	湿度: 恒温下 85% 以内, 无凝露。 Humidity: not more than 85% at constant temperature without condensation.			
	允许高度: 海拔 1000m 以下。 Allowable altitude: not more than 1000m above sea level.			
	不应有腐蚀性、可燃性、易爆性气体。 No corrosive, flammable or explosive gases.			

高级功能 ADVANCED FUNCTIONS

拖动示教

Hand guiding function



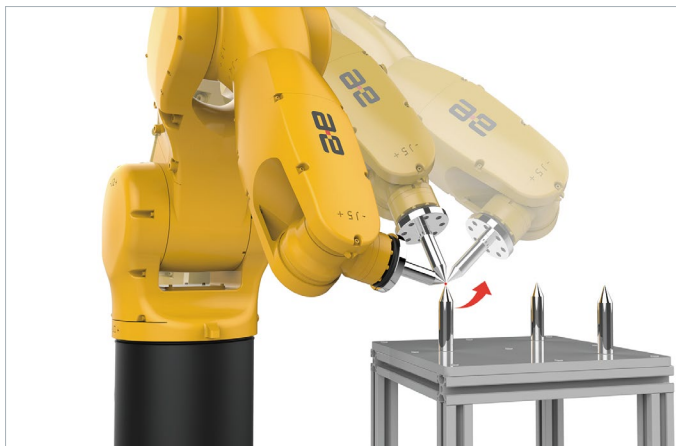
外部轴联动

External axis linked control function



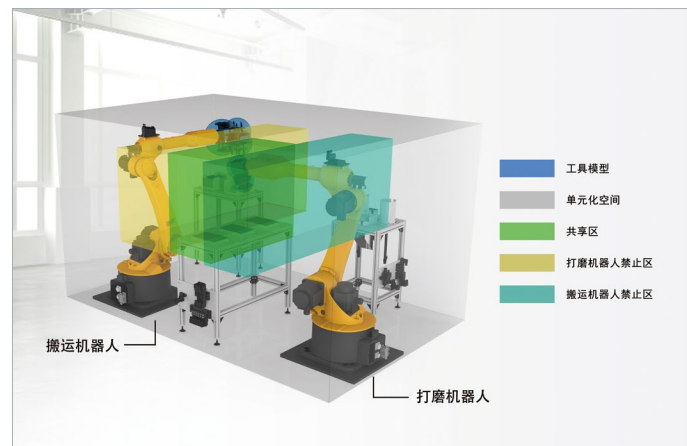
高绝对定位精度

High absolute positioning accuracy



安全区域控制

Safety zone control function



碰撞检测

Collision detection function



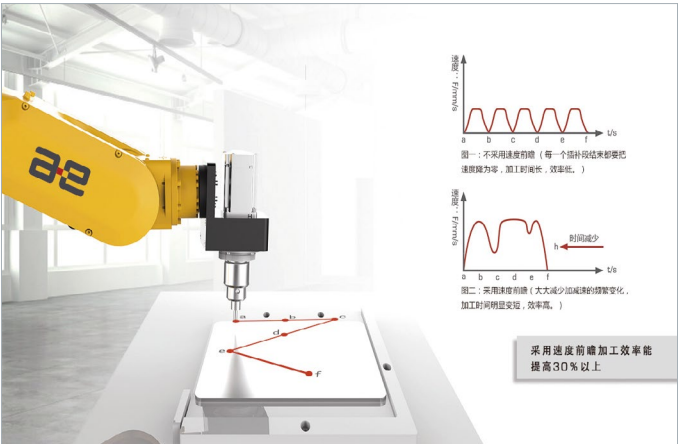
传送带动态跟踪

Conveyor tracking function



速度前瞻控制

Speed forward-looking control function

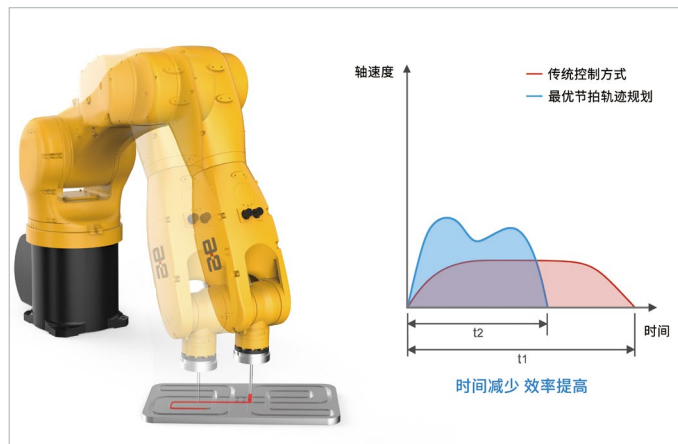


螺旋线插补

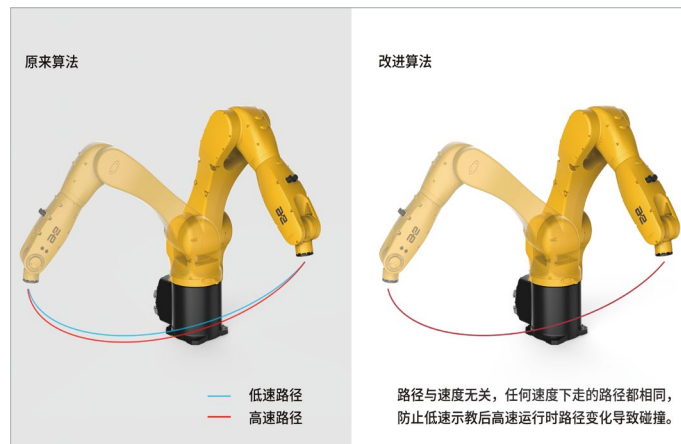
Spiral interpolation function



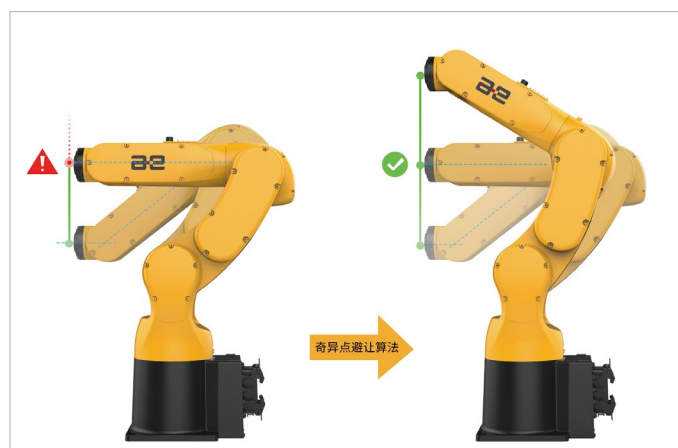
最优节拍轨迹规划 Time-Optimal



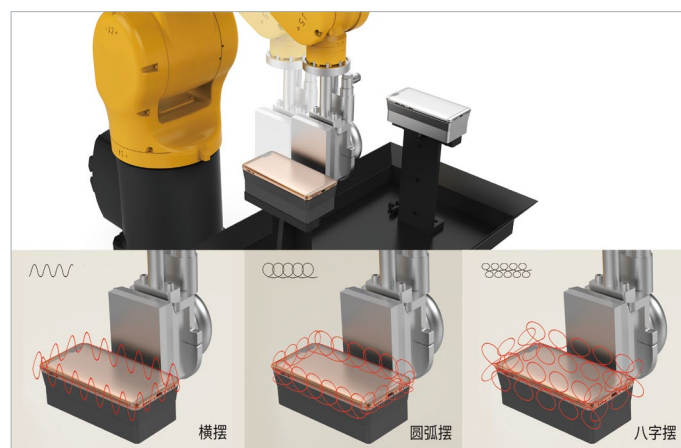
绝对路径保持 Path-Invariant



奇异点避让 Singularity avoidance function

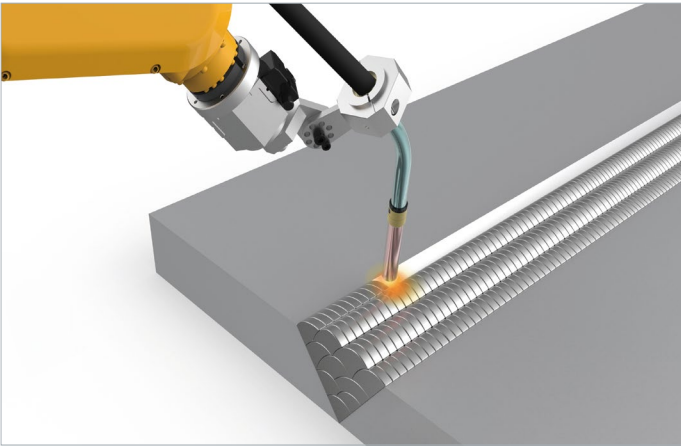


摆动轨迹 Various swing paths



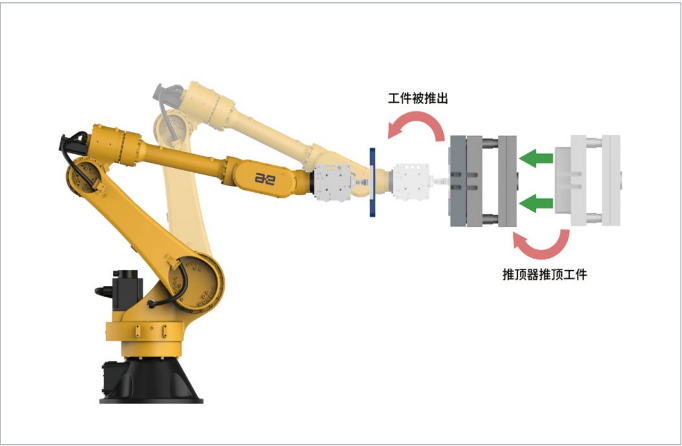
多层多道焊接

Multi-layer multi-channel welding



软浮动

Soft Move function



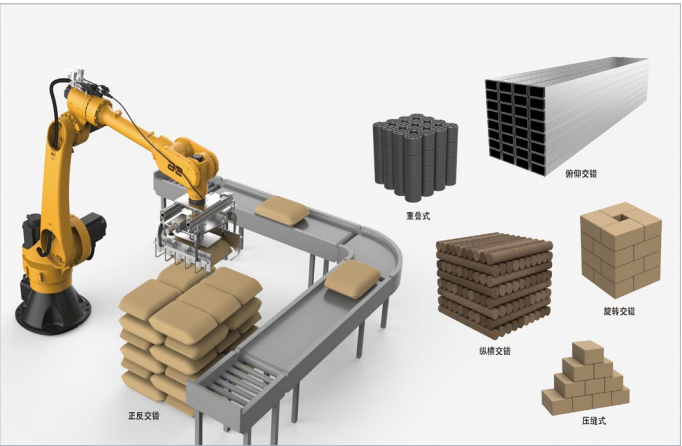
折弯跟随

Bending follow function



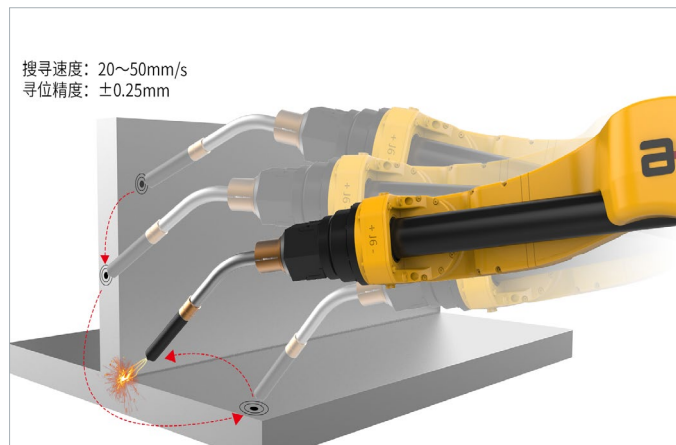
码垛功能

Palletizing function



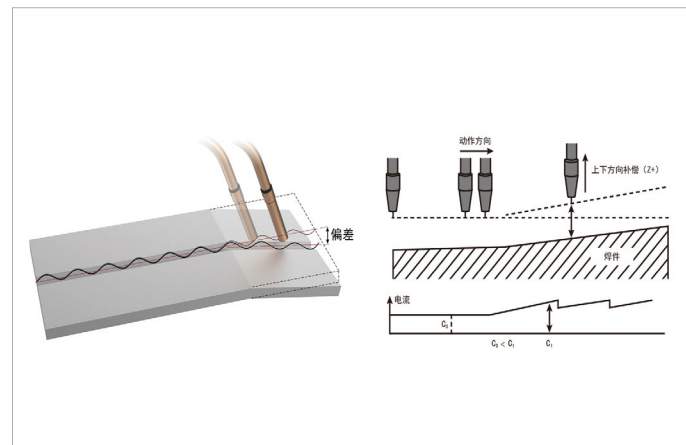
焊缝起始点自动寻位

Seam searching



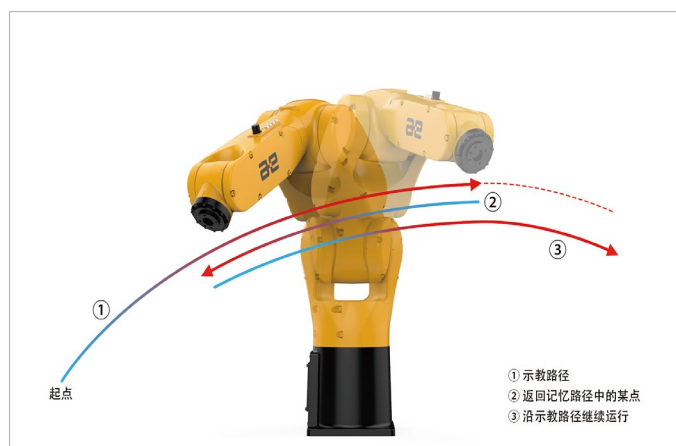
摆动电弧焊缝跟踪

Seam tracking with swing arc sensor



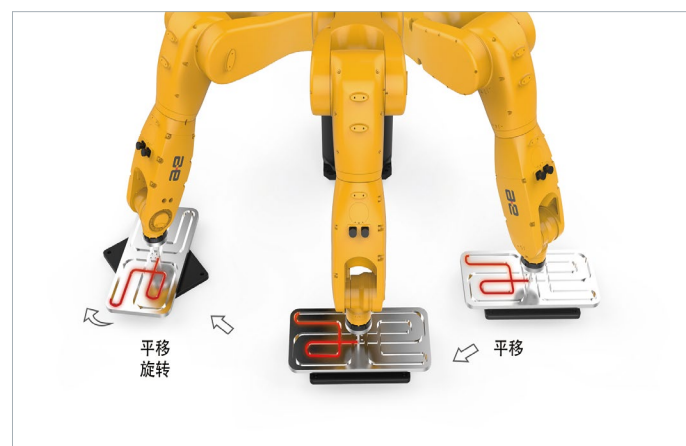
轨迹记忆

Path memory



轨迹变换功能

Path transformation function





伺服系统 SERVO SYSTEM



- 高动态响应
- 高分辨率、位置控制更精准
- 高速、高过载
- 具备多种振动抑制功能
- 内置多种观测器
- 更低的发热、更长的使用寿命
- 支持 EtherCat 总线控制

- High dynamic response
- High resolution, more precise position control
- High speed, high overload
- Multiple vibration suppression functions
- Multiple built-in observers
- Lower heat generation and longer service life
- Support EtherCAT bus control

伺服驱动 SERVO DRIVE



AE5000 系列伺服驱动器是配天隆重推出的高性能伺服电机控制系统，采用 SVPWM 控制技术和 ARM+FPGA 系统架构，具有高可靠性、高动态响应、高控制精度的特点。该系列产品广泛应用于工业机器人、数控机床、自动化专机设备等应用场合。

The company grandly launches its high-performance industrial products, AE5000 series servo drives, adopting the SVPWM control technology and ARM+FPGA system architecture, with the characteristics of high reliability, high dynamic response and high control precision. The series of products are widely used in the industrial robots, CNC machine tools, automation plane equipment and other applications.

- AE5110 系列 _ 模拟量、脉冲指令型
- AE5115 系列 _ EtherCAT 通信指令型

- AE5110 Series_Analog/Pulse
- AE5115 Series_EtherCAT

型号 /Model	R90	2R8	5R5	7R1	7R6	9R5	120	150	200	330
主控电源 /Main circuit	AC 单相 / 三相 220V 50/60Hz/ AC Single/3-phase 220V, 50/60Hz									
控制电源 /Control circuit	AC 单相 220V 50/60Hz AC Single phase 220V, 50/60Hz									
额定功率 (kW)/Rated power(kW)	0.1	0.4	0.75	1.0	1.0	1.3	1.5	2.0	3.0	5.0
单相输入电流 (Arms) Single-phase input current(Arms)	1.2	3.6	6.5	11	11.9	14.9	——	——	——	——
三相输入电流 (Arms) Three-phase input current(Arms)	0.7	2.1	3.4	4.5	4.8	6	7.3	10.5	14	24
额定输出电流 (Arms) Rated output current(Arms)	0.91	2.8	5.5	6.4	7.6	9.5	11.6	15.4	19.6	32.9
最大输出电流 (Arms) Maximum output current(Arms)	2.9	9.3	17	18	18	20	28	37	56	84
内置再生电阻值 (Ω) Built-in regenerative resistance valule (Ω)	——	——	50	50	50	50	30	30	20	12
内置再生电阻功率 (W) Built-in regenerative resistance power(W)	——	——	50	50	50	50	100	100	400	400
外接再生电阻最小值 (Ω) Minimum value of external regenerative resistance (Ω)	40	40	40	40	40	30	20	20	10	10
外接再生制动线径推荐 (mm²) Wire diameter of external regenerative braking(mm²)	1					2				3
尺寸 W*H*D (mm) Size H * W * D (mm)	42*160*148	42*160*148	50*160*170	50*160*170	90*160*180	90*160*180	90*160*180	90*160*180	100*180*187	110*250*210
重量 (kg) /Weight (kg)	0.92	0.92	1.6	1.6	2.0	2.0	2.0	2.0	3.2	5.0

伺服电机

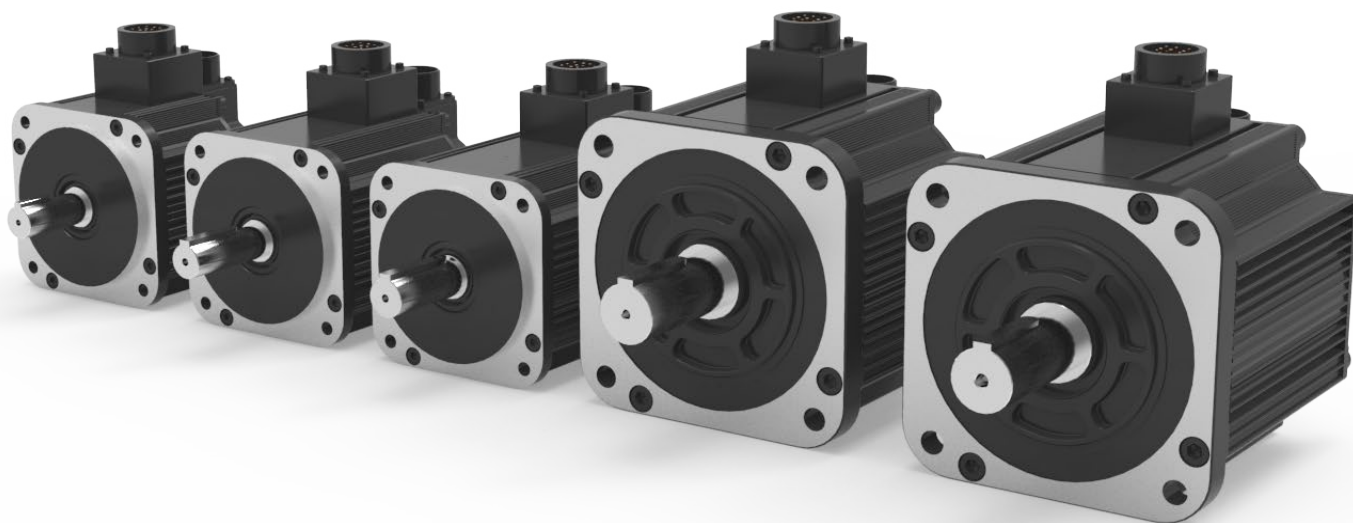
SERVO MOTOR



AE1000 系列交流伺服电机具有高功率密度性能和电磁性能优势，采用配天自主知识产权的独特电机结构设计技术，各项性能指标均达到国际先进水平。该系列电机广泛应用于工业机器人、数控机床、包装机械、印刷机械及其它自动化生产线等领域。

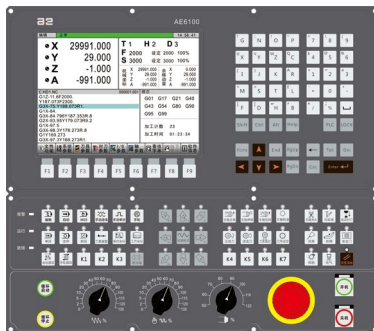
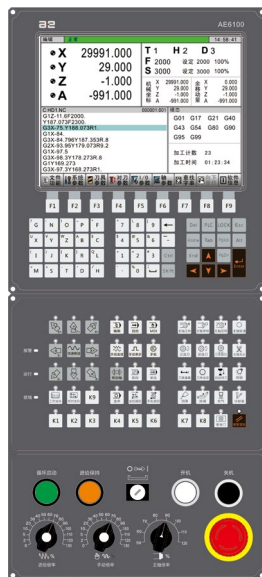
AE1000 series AC servo motors have the advantages in high power density performance and electromagnetic performance, which adopt unique motor structure design technology with independent intellectual property rights owned by the company, and various performance indexes have reached the international advanced level. This series of motors are widely used in industrial robots, CNC machine tools, packaging machinery, printing machinery, and other automated production lines.

伺服电机型号 Servo motor model (电压 220V)		额定功率 Rated power (W)	额定转矩 Rated torque (N·m)	额定电流 Rated current (A)	瞬时最大转矩 Peak torque (N·m)	瞬时最大 电流 Maximum current (A)	额定转速 Rated speed (RPM)	最高转速 Maximum speed (RPM)	转动惯量 Rotor moment	编码器 Encoder	重量 Weight (Kg)
中惯量 Medium inertia 低容量 Low- capacity (AE1L-)	0401	100	0.318	0.84	1.114	3.2	3000	6500	0.061 (0.063)	绝对式 20bit/ 20-bit ABS.	0.43 (0.62)
	0602	200	0.637	1.65	2.23	6.5			0.252 (0.259)		0.78 (1.26)
	0604	400	1.27	2.8	4.44	11.6			0.461 (0.468)		1.26 (1.74)
	0606	600	1.91	4.2	6.68	15.5			0.655 (0.661)		1.6 (2.08)
	0808	750	2.39	5	8.36	18			1.65 (1.73)		2.23 (3.11)
	0810	1000	3.18	6.6	11.14	23.8		6000	2.16 (2.22)		3.04 (3.92)

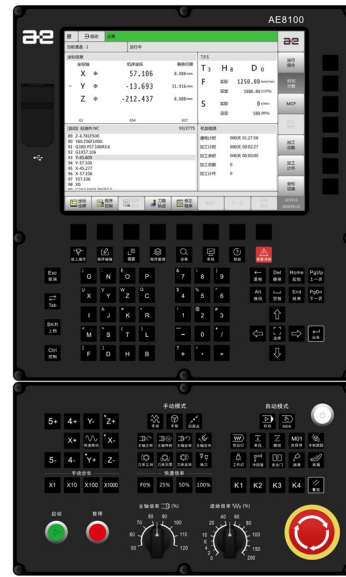


伺服电机型号 Servo motor model (电压 220V)		额定功率 Rated power (W)	额定转矩 Rated torque (N·m)	额定电流 Rated current (A)	瞬时最大转矩 Peak torque (N·m)	瞬时最大 电流 Maximum current (A)	额定转速 Rated speed (RPM)	最高转速 Maximum speed (RPM)	转动惯量 Rotor moment	编码器 Encoder	重量 Weight (Kg)
中惯量 Medium inertia 中容量 Medium- capacity (AE1M-)	1309	850	5.39	6.4	14.2	17	1500	3000	11.67 (12.11)	绝对式 17bit / 17-bit ABS.	7.8 (9.1)
	1313	1300	8.28	9.5	23.3	28			17.2 (17.8)		9.08 (10.5)
	1315	1500	7.16	8.21	21.5	25.45	2000		17.2 (17.8)		9.08 (10.5)
	1318	1800	11.46	13.2	42	48	1500		25.32 (25.72)		10.5 (11.6)
	1320	2000	9.55	14.5	28.7	44.2	2000		17.2 (17.8)		9.38 (10.5)
	1330	3000	14.3	16.5	43	50			25.32 (25.72)		10.5 (11.6)
	1829	3000	19.1	22.29	45.1	56	1500		44.76 (51.49)		17.5 (19.5)
	1844	4400	28.4	32.9	71.1	87			66.58 (73.26)		21.5 (23.5)
	1850	5000	23.8	28.5	60.43	73.9	2000		66.58 (73.26)		21.5 (23.5)
高惯量 High inertia 低容量 Low- capacity (AE1F-)	045A	50	0.159	0.55	0.557	2	3000	6500	0.040[0.043]	绝对式 20bit/ 20-bit ABS.	0.30[0.52]
065A	50	0.159	0.87	0.556	3.62	0.094 (0.101)			0.42 (0.62)		
0601	100	0.318	0.98	1.113	4.78	0.146 (0.153)			0.5 (0.77)		
0804	400	1.27	2.8	4.44	11.6	0.96 (1.018)			1.94 (2.82)		

数控系统 CNC SYSTEM



AE6100



AE8100

配天数控系统可靠性高，性能强劲，保证生产作业中运动控制的精确性和稳定性，适应于全系列车床、钻、镗、雕铣、加工中心控制器。

AE8100 has been strictly tested over a prolonged period of time in industrial field, the accuracy and stability of Peitian CNC systems have been proved. The applications of CNC system have covered full range of controllers for lathe, drilling, boring, engraving and milling machines, machining center and so on.

- AE6100 系列
- AE8100 系列

- AE6100 Series
- AE8100 Series

型号 Model	AE6100
控制通道数 The number of control channels	1
轴控制方式 The axis control method	速度、位置控制 Speed and position control
控制轴数 Controlled Axis Number	8
联动轴 Compounding axis	五轴联动, 支持 RTCP Five-axis linkage, support RTCP
主轴控制 Spindle control	变频主轴 / 伺服主轴控制, 支持刚性攻丝 Frequency spindle/Servo spindle control, Rigid tapping supported
最小指令单位 / 控制单位 Minimum command unit/control unit	0.1μm 和 0.001μm
最大编程尺寸 Maximum programming size	±9999.999mm
插补周期 Interpolation period	125μs、250μs、500μs、1000μs (可自主配置) 125μs, 250μs, 500μs, 1000μs (Configurable)
最高快进给速度 / 进给速度 Max. feeding speed/ Feeding speed	128m/min 60m/min
进给 / 手动倍率 Feed rate/Manual feed ratio	0 ~ 130% 十六级实时调节 0 ~ 130% Sixteen-level Real-time Adjustment
主轴倍率 Spindle override	50 ~ 120% 八级实时调节 50 ~ 120% Eight-level Real-time Adjustment
显示界面 Display interface	6.4/10.4 真彩 TFT 液晶显示 6.4/10.4" True color TFT LCD
刀库管理 Tool magazine management	斗笠刀库、刀臂式刀库、夹臂式刀库、自定义刀库 Turntable magazine, rotary disc magazine, insert the arm magazine, user-defined magazine
刀具控制 Tool control	液压刀架、电动刀架、伺服刀架、排式刀架 Hydraulic, electric, servo, row type
PLC 功能 PLC function	开放 PLC Open PLC
插补方式 Interpolation method	直线、圆弧、螺旋线、样条 Straight line, arc, helix, spline
回参考点 Reference point	自动、手动 Automatic, manual
告警功能 Alarm function	急停, 软 / 硬限位检测, 自定义告警提示 Emergency stop, soft/hard limit detection, custom alarm
公 / 英制转换 Inch/metric conversion	支持 Support
机床控制 Machine control	进给保持、程序段跳过、跳转、程序锁 Feed hold, block skip, skip function, program protect
输入 输出点位 Input/output	60/40
程序编辑 Program edit	绝对 / 增量混合编程、小数点编程、直径 / 半径编程 Absolute/relative programing, decimal point programming, diameter/radius programming
驱动配置 Drive configuration	交流 / 直流伺服 AC / DC servo
其他功能 Other functions	恒线速度控制、力矩补偿、自适应预读、断电数据保持、固定循环 / 子程序调用、自动分中对刀 Constant surface speed control, torque compensation, adaptive prefetching, power-off data retention, fixed cycle / sub-program call, automatic centering

型号 Model	AE8100AM		AE8100DM
控制通道数 The number of control channels	1		6
轴控制方式 The axis control method	位置控制 (脉冲指令) Position control (pulse command)		RTEX 总线、EtherCAT 总线 RTEX bus, EtherCAT bus
控制轴数 Controlled Axis Number	4		64
联动轴 Compounding axis	三轴联动 There-axis linkage		五轴联动, 支持 RTCP Five-axis linkage, support RTCP
主轴控制 Spindle control	变频主轴 / 伺服主轴控制, 支持刚性攻丝 Frequency spindle/Servo spindle control, Rigid tapping supported		
最小指令单位 / 控制单位 Minimum command unit/control unit	1μm 和 0.1μm		
最大编程尺寸 Maximum programming size	±9999.999mm		
插补周期 Interpolation period	125μs、250μs、500μs、1000μs (可自主配置) 125μs, 250μs, 500μs, 1000μs (Configurable)		
最高快进给速度 / 进给速度 Max. feeding speed/ Feeding speed	128m/min 60m/min		
进给 / 手动倍率 Feed rate/Manual feed ratio	0 ~ 150% 十六级实时调节 0 ~ 150% Sixteen-level Real-time Adjustment		
主轴倍率 Spindle override	50 ~ 120% 十三级实时调节 50 ~ 120% Thirteen-level Real-time Adjustment		
显示界面 Display interface	6.4/10.4 真彩 TFT 液晶显示 6.4/10.4" True color TFT LCD		
刀库管理 Tool magazine management	斗笠刀库、刀臂式刀库、夹臂式刀库、自定义刀库 Turntable magazine, rotary disc magazine, insert the arm magazine, user-defined magazine		
刀具控制 Tool control	液压刀架、电动刀架、伺服刀架、排式刀架 Hydraulic, electric, servo, row type		
PLC 功能 PLC function	开放 PLC Open PLC		
插补方式 Interpolation method	直线、圆弧、螺旋线、样条 Straight line, arc, helix, spline		
回参考点 Reference point	自动、手动 Automatic, manual		
告警功能 Alarm function	急停, 软 硬限位检测, 自定义告警提示 Emergency stop, soft/hard limit detection, custom alarm		
公 / 英制转换 Inch/metric conversion	支持 Support		
机床控制 Machine control	进给保持、程序段跳过、跳转、程序锁 Feed hold、block skip, skip function, program protect		
输入 输出点位 Input/output	64/48		256/256
程序编辑 Program edit	绝对 / 增量混合编程、小数点编程、直径 / 半径编程 Absolute/relative programing, decimal point programming, diameter/radius programming		
驱动配置 Drive configuration	交流 / 直流伺服 AC / DC servo		
其他功能 Other functions	恒线速度控制、力矩补偿、自适应预读、断电数据保持、固定循环 / 子程序调用、自动分中对刀 Constant surface speed control, torque compensation, adaptive prefetching, power-off data retention, fixed cycle / sub-program call, automatic centering		

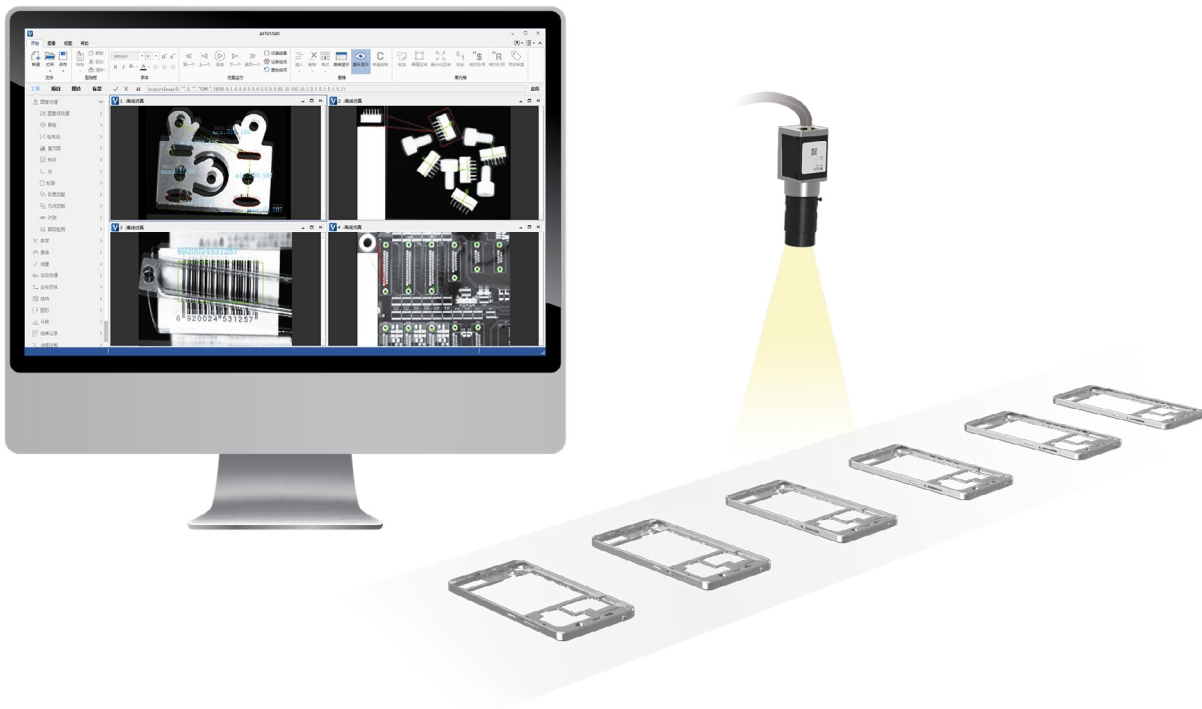


机器视觉

MACHINE VISION

AEIV1000 是一款通用机器视觉平台软件。该系统有 170 余项高效、高精、高鲁棒性的工具，可满足引导、定位、检测、测量等全线应用需求。可广泛应用于工业机器人、汽车、半导体、电子产品、食品和饮料、制药、日化品、包装、物流、印刷、医疗设备、玻璃、金属等行业。该产品荣获 2015 高工机器人机器视觉类产品金球奖。

ARVS1000 is a generic visual processing software platform, with over 170 visual tools of high efficiency, high precision and high robustness, which could meet all the needs of the manufacturing lines, such as guidance, positioning, inspection and measurement. The software can be widely used in various aspects of industrial robots, vehicles, semiconductors, electronics, food and beverage, pharmacy, daily chemicals, packaging, logistics, printing, medical facilities, glass and metal.

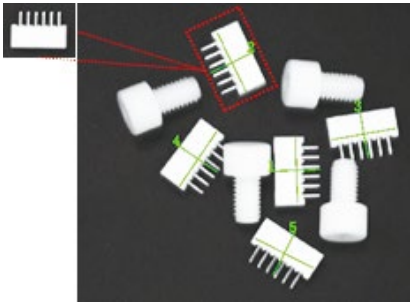




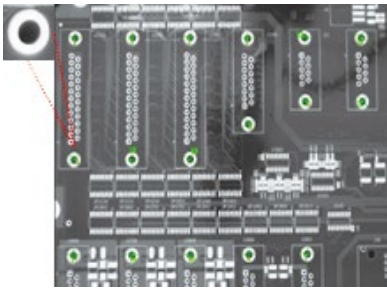
170 多个工具箱	Over 170 tools
对光照、模糊、噪音、遮挡、背景等不良因素有很强的鲁棒性	Strong robustness against illumination, blur, noise, overlap and complex background
1/25 亚像素精度	Sub-pixel accuracy 1/25
关键算法毫秒级处理速度	Processing speeds of key algorithms at millisecond level
支持离线仿真功能	Offline simulation supported
无需编程，通过拖拽工具快速配置视觉程序	Dragging and dropping toolkits to configure your own visual task without programming
支持 Basler、PointGrey 等多种主流相机的预览及参数设置	Multi-brands cameras supported (Basler, PointGrey etc.)
强大的项目管理功能，支持多项目监控、项目间数据通信、项目切换等功能	Multi projects management (monitoring, data transfer and switching between projects)
支持 TCP/IP String、TCP/IP Modbus、RS232/485 Modbus 等协议，可与绝大多数工业机器人、PLC、IO 模块及其它工控设备建立通信联系	Multi Communication protocols supported (TCP/IP, TCP/IP Modbus, RS232/485 Modbus etc.). Communications between multi control equipment (robots, PLC, I/O etc.) available



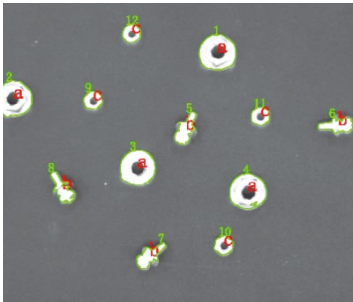
丰富的视觉工具箱
A rich set of visual processing tools



几何匹配
Geometric Matching



灰度匹配
Gray-level Matching



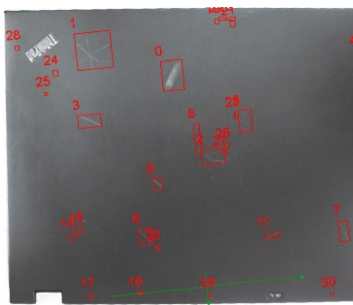
Blob 提取
Blob Extraction



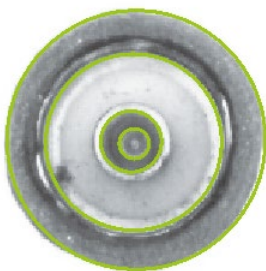
条码识别
Barcodes Recognition



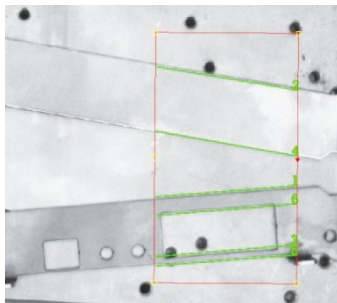
二维码识别
QR Codes Recognition



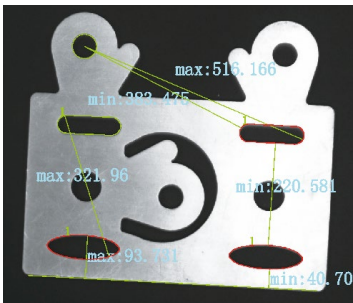
缺陷检测
Flaw Detection



找圆
Circles Finding



找线
Lines Finding



测量
Measurement



解决方案

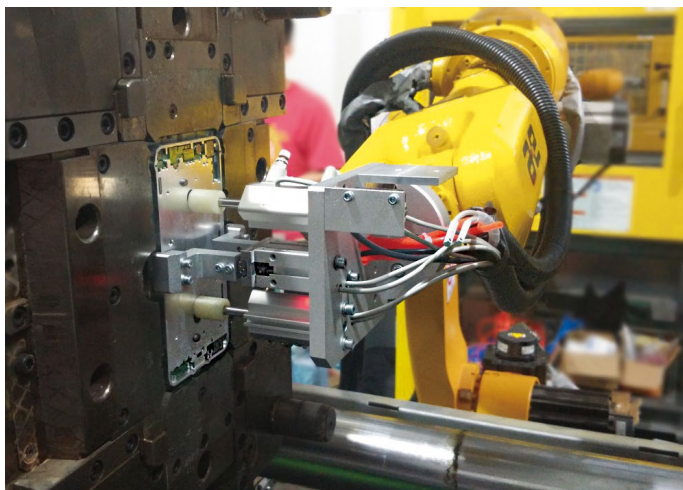
SOLUTIONS

搬运、码垛、上下料

Handling / Palletizing / Loading & Unloading

手机外壳注塑机上下料工作站

Robot loading & unloading cell for injection molding machine



喷锡自动上下料

Robot loading & unloading cell for solder spray



打磨抛光

Grinding & Polishing

手机外壳打磨抛光

Grinding and polishing of the phone shell



滤波器外壳打磨去毛刺

Grinding and deburring of the filter shell



焊接
Welding

农用机械零部件气体保护焊接
Gas protection welding of the agricultural mechanics components



电子元器件锡焊
Tin soldering of the electronic components



装配
Assembly

滤波器谐振杆装配，螺丝锁付
Assembly of filter resonant rod , screw lock



电子元器件装配
Electronic components assembly



机器视觉应用

Machine Vision Application

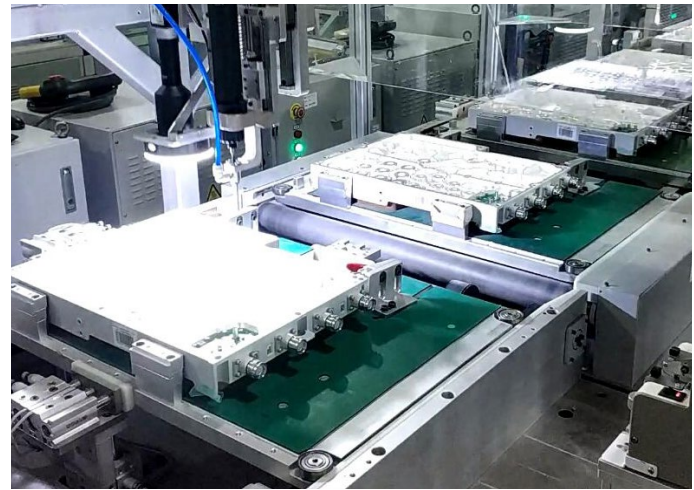
机器人在视觉引导下快速分拣

Rapid sorting by vision guided robot



滤波器装配生产线，视觉定位

Filter assembly line, visual positioning



教育培训

Education and Training

机器人技术实训平台

Robot technology training platform



安徽省工业机器人技术应用技能大赛

2020\2019\2018 Industrial robot technology application competition of Anhui province



典型产线应用案例
Typical Application Cases of Production Line

无源滤波器自动化智能柔性装配生产线
Passive filter automatic intelligent flexible assembly line



自动包装生产线
Automatic packaging production line



冲压机上下料产线
Press machine loading and unloading production line



电机装配自动化产线
Motor assembly automation line





服务

SERVICE

服务网络

华南地区：深圳、广州、东莞、珠海、中山、佛山、
 南宁
华东地区：蚌埠、合肥、南京、苏州、上海、青岛、
 泉州
华北地区：北京、天津、太原
华中地区：武汉、长沙、南昌、重庆

服务内容

- 方案咨询
- 方案提供
- 安装调试
- 售后服务
- 定期保养
- 终身维护

服务承诺

接到电话后 24 小时内受理



SERVICE NETWORK

South China: Shenzhen, Guangzhou, Dongguan, Zhuhai, Zhongshan,
 Foshan, Nanning
East China: Bengbu, Hefei, Nanjing, Suzhou, Shanghai, Qingdao,
 Quanzhou
North China: Beijing, Tianjin, Taiyuan
Central China: Wuhan, Changsha, Nanchang, Chongqing

SERVICE CONTENT

- Solutions Consulting
- Solutions Providing
- Installation and debugging
- After-sales Service
- Regular maintenance
- Lifelong maintenance

SERVICE COMMITMENT

Respond within 24 hours.





培训

TRAINING

培训内容

配天机器人系统安全培训

配天机器人编程语言初级培训

配天机器人编程语言高级培训

配天机器人的示教编程及操作培训

配天机器人的故障处理与维护培训

培训方式

标准课程

定制培训

课堂讲授 + 操作编程实践

联系我们

服务热线：400-990-0909

TRAINING CONTENTS

Peitian Robotics System safety training

Peitian Robotics Programming language primary training

Peitian Robotics Programming language advance training

Peitian Robotics Teaching-programming & operation training

Peitian Robotics Troubleshooting & maintenance training

TRAINING MODE

Standard courses

Tailored courses

Classroom teaching + programming practice

CONTACT US

Service Hotline：400-990-0909



安徽省配天机器人集团有限公司

Anhui Peitian Robotics Group Co., LTD



微信公众号



机器人应用视频

<http://robot.peitian.com>