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FOUR OVERALL SOLUTIONS FROM AOTTO

★ 冷加工自动化解决方案

OVERALL SOLUTIONS FOR COLD PROCESSING AUTOMATION

★ 热加工自动化解决方案

OVERALL SOLUTIONS FOR HOT PROCESSING AUTOMATION

★ 安全防护系统解决方案

OVERALL SOLUTIONS FOR SAFETY GUARDING SYSTEM

★ 智能抓取标准产品

INTELLIGENTLY GRAB STANDARD PRODUCTS

济南奥图自动化股份有限公司 Jinan Aotto Automation Co., Ltd.

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Ver. 2024-04

Aotto

冷加工
自动化解决方案

OVERALL SOLUTIONS FOR
COLD PROCESSING AUTOMATION

济南奥图自动化股份有限公司
Jinan Aotto Automation Co., Ltd.

Since 2000

Aotto
奥图股份

Aotto

专注于为冲压行业提供全面优质的自动化集成服务。
Concentrate on providing comprehensive and high－quality automation integration services for the stamping industry.

Atrey

专业提供高端激光切割装备及服务。
Provide customers with Hi-End laser cutting devices and services.

Awiz

提供冲压生产智慧工厂一体化解决方案。
Provide stamping production intelligent factory integration solutions.

Aovita

专业精工、八面玲珑、提供机器人自动快换装置及端拾器精准适配方案。
Aovita tooling provides professional, fine and exquisite overall solutions for Robot quick changer and tooling.

Aosaff

提供安全防护整体解决方案。
Provide overall solutions for safety protection.

目录 CONTENTS

- 企业简介 Introduction ····· P01
- 公司荣誉 Honor ····· P03
- 公司文化 Culture ····· P04
- 合作伙伴 Company Partner ····· P05
- 冷加工自动化解决方案 Cold Processing Automation Overall Solutions ····· P07
  - 机器人及机械手冲压自动化线 Robot & Manipulator Automatic Stamping Production Line ····· P07
  - 多工位自动化线 Transfer Press Automation Production Line ····· P12
  - 纵梁加工自动化线 Truck Beam Processing Automation Production Line ····· P14
  - 机加工自动化线 Machining Automation Production Line ····· P15
  - 激光落料生产线 Laser Blanking Line ····· P16
- 冷加工设备配套产品 Supporting Equipment ····· P17
  - 板料清洗机 Blank Washer ····· P17
  - 板料涂油机 Blank Oiler ····· P20
  - 垛料翻转机 Bundle Turnover ····· P22
  - 电动无轨重载运输车 Electric Trackless Heavy-duty Vehicle ····· P24
  - 三维五轴激光切割机 3D Five-axle Laser Cutter ····· P28
  - 端拾器 Tooling ····· P29
  - 机器人工具快换装置 Robot Tool Quick Changer ····· P31
  - 安全防护围栏 Safety Guarding Fence ····· P33
  - 冲压智能制造系统 Stamping Intelligent Manufacturing System ····· P35

ABOUT US

公司简介

济南奥图自动化股份有限公司始创于 2000 年，秉承“致力创新、追求卓越”的理念，坚持“产品领先”的发展战略，为汽车、机械、家电和轻工等行业持续提供优质的自动化设备、服务和整体解决方案。

2015 年 10 月，公司在新三板成功挂牌，成为冲压自动化行业第一家跨入资本市场的企业。2016 年，公司重磅推出 **Aovita®** 端拾器和 **Aosaff®** 安全防护围栏两大子品牌。

公司积极建设现代化企业管理制度，通过了 ISO9001 质量管理体系认证和安全生产标准化认证，已全面实施 PLM、ERP、CRM 和中台等企业管理系统。

Jinan Aotto Automation Co., Ltd., established in 2000, persists in concept of “devoting to innovation and pursuing excellence” and development strategy of “product leadership”, provides outstanding automation equipment, services and turnkey solutions to industries such as automobile, machinery, and home appliance industry,etc.

In October 2015, Aotto was public listed in NEEQ stock market, and the first Chinese enterprise of stamping industry to enter the capital market. In 2016, Aotto released **Aovita** tooling system and **Aosaff** safety guarding fence.

Aotto adopting modern enterprise management system actively, passes ISO9001 quality management system authentication and safe production standardization authentication, and implements enterprise management systems such as PLM, ERP, CRM and OA fully.

公司被认定为山东省技术开发中心和软件企业、高新技术企业，现已拥有百余项发明和实用新型专利，并多次荣获山东省著名商标、省市科技进步奖和创新型企业等荣誉称号。

公司核心产品包括机器人自动化冲压生产线、机械手自动化冲压生产线，汽车纵梁生产线、机加工上下料、物料搬运、高强钢热成形、多工位、线尾自动装筐系统、激光落料线、锻造等自动化生产线，板料清洗机、板料涂油机、垛料翻转机、重载电动无轨运输车、三维激光切割机、端拾器、锻压设备升级改造和非标自动化设备，公司自动化产品现已遍布全国二十多个省、自治区和直辖市，并远销东南亚、南亚、中亚及欧洲等多个国家和地区。

Aotto is awarded as technical development center and software enterprise and high-tech enterprise provincial level, has over 100 invention and utility model patents at present, famous trademark of Shandong Province, science and technology progress award and innovation enterprise of Shandong Province.

Core products of Aotto include robot automation stamping production line, manipulator automation stamping production line, truck beam processing, machine tool loader and unloader, material handling, high-strength steel hot-stamping, press linear transfer line, automatic stacking system, laser blanking line and forging automation system production line, blank washer, blank oiler, bundle turnover, electric heavy-duty vehicle, 3D laser cutter, tooling, stamping machine retrofitting and tailored Automatic solutions. Automatic products have been sold over 20 provinces, automatic regions and municipalities in China, and sold to various countries and regions in Asia, America and Europe.

公司荣誉

COMPANY HONOR

济南奥图自动化股份有限公司
Jinan Aotto Automation Co.,Ltd.
高新技术企业
High-tech enterprise

济南奥图科技有限责任公司
Jinan Aotto Technologies Co.,Ltd.
高新技术企业
High-tech enterprise

山东省著名商标
Famous trademark of Shandong Province

- ISO9001质量管理体系认证
  ISO9001 quality management system authentication
- 安全生产标准化三级企业
  Safe production standardization grade III enterprise
- 山东省企业技术中心和软件企业
  Enterprise technical center and Software enterprise of Shandong Province
- 高新技术企业
  High-tech enterprise
- 山东省著名商标
  Famous trademark of Shandong Province
- 山东省科学技术奖
  Science and technology progress award of Shandong Province
- 济南市创新型企业
  Innovation enterprise of Jinan City
- 济南市工业机器人工程技术研究中心
  Industrial Robotics Engineering Technology Research Center of Jinan City

ISO9001质量管理体系认证
ISO9001 quality management system authentication

山东省科学技术奖
Science and technology progress award of Shandong Province

公司文化

COMPANY CULTURE

员工自豪、社会尊敬、自动化产品遍布世界的奥图

Aotto all around the world leading to the pride of the staff and the respect of society

公司秉承“举贤任能、信笃任专”的人才理念，为员工创造了广阔的发展空间，通过开展集体旅游、趣味运动会、年会等活动丰富员工生活，激发员工的工作热情和团队精神。公司鼓励创新，循循善导，培育了一批积极奋进、勇于开拓、热情开放、充满活力的奥图人。

The company insists on talent concept of “employing the wise and trusting the sincere”, creates wide development space for the employees, enriches the employees’ living and stimulates their working passion and team spirit by activities such as collective tourism, fun games and annual meeting. The company encourages innovation, gives good guidance, and fosters a batch of Aotto's employees, who are active, industrial, pioneering, enthusiastic, opening and vigorous.

合作伙伴

COMPANY PARTNER

- 合作共赢是奥图股份的核心价值。
- 我们积极为制造行业提供优质的自动化服务。
- 我们希望，与合作伙伴共同汇聚创造力、深化影响力，以达成共赢。
- 我们相信，通过我们的不断努力和追求，定能实现与合作伙伴的合作共赢，和谐共进！

- Win-win cooperation is core value of Aotto.
- We provide outstanding automatic service to Manufacturing industry.
- We hope to gather creativity with our partners, and move forward together.
- We believe cooperation, win-win and harmony advance can be realized by our continuous effort and pursuit!

合作共赢

和谐共進

机器人自动化冲压生产线

ROBOT AUTOMATIC STAMPING PRODUCTION LINE

1 Destacker table 2 Destacker Robot and Tooling 3 Feeding belt conveyor 4 Washing machine 5 Oiling machine 6 Centering table
7 Loading Robot with vision system 8 Transfer robot 9 Press 10 EOL belt conveyor 11 Inspection table and illumination

机器人自动化冲压生产线主要由冲压专用机器人、拆垛台车、皮带输送机、清洗机、涂油机、视觉对中识别系统、整线自动化及安全系统集成、冲压同步 功能软件、柔性七轴、整线网络控制、柔性端拾器、整线安全防护系统、压机及模具、视频监控系统、LED 显示系统、照明系统、检验台、运模车、翻转机等外围成套设备组成。具有自动化程度高、效率高、性价比高、安全稳定性好、布局紧凑、适应多品种工件生产等优点。

Robot automatic stamping production line mainly consists of robot, destacker table, belt conveyor, washer, oiler, vision centering system, whole line automation and safeguard system integration, stamping synchronization software, flexible seven-axle, whole line network control, flexible tooling, whole line safety fence system, presses machine and dies, vision monitoring system, LED message screen, lighting system, inspection table, dies carriage and bundle turnover machine. It has various advantages such as high automation, efficiency, performance-price ratio, safety and stability, compact layout and suiting multi-type parts production.

成功案例

Successful case

机械手自动化冲压生产线

MANIPULATOR AUTOMATIC STAMPING PRODUCTION LINE

1 Destacker table 2 Belt conveyor 3 Destacker 4 Washing machine/Oiling machine 5 Loader 6 Mechanical centering table
7 Single arm transfer 8 Press 9 Unloader 10 EOL belt conveyor 11 Inspection table and illumination

机械手自动化冲压生产线主要由机械手单元、拆垛台车、皮带输送机、清洗机、涂油机、机械对中系统、整线自动化及安全系统集成、冲压同步功能软件、整线网络控制、柔性端拾器、整线安全防护系统、压机及模具视频监控系统、LED显示系统、照明系统、检验台、运模车、翻转机等外围成套设备组成。具有自动化程度高、效率高、安全稳定性好、适应多品种生产等优点。

Manipulator automatic stamping production line mainly consists of manipulators, destacker table, belt conveyor, washer, oiler, mechanical centering table, whole line automation and safeguard system integration, stamping synchronization software, whole line network control, flexible toolings, whole line safety fence, presses and dies, monitoring system, LED message screen, lighting system, Inspection table, dies carriage and bundle turnover machine. It has various advantages such as high automation, efficiency, safety and stability, and suiting multi-type parts production.

成功案例

Successful case

冷加工自动化解决方案

自动化生产线模块单元

STANDARD UNITS OF STAMPING AUTOMATION SYSTEM

线首部分 | FOL

线首部分包括拆垛系统，清洗机、涂油机、皮带机输送、对中台定位等模块。

FOL includes destacker, washing machine, oiling machine, belt conveyor and centering table.

压力机之间传送 | Transmission between presses

在高速自动化冲压线中，采用机器人在压力机之间传送工件。根据机器人传送方式可分为普通六轴机器人传送、机器人直线七轴传送、机器人旋转七轴传送等三种；根据机器人安装方式可分为固定安装机器人、机器人侧移和机器人随动传送等三种。

Transfer between presses: In robotic automatic stamping lines, robot is used to transfer pars between presses. According to the robotics type, It can be divided into three types, i.e., typical six-axle robot transfer, robot with linear seven-axle transfer and robot with rotary seven-axle transfer; according to robot installation method, it can be divided into three types, fixing installation, lateral movable and synchronous.

- 普通六轴机器人传送
  Normal six-axle robot transmission

- 机器人直线七轴传送
  Linear seven-axle transmission

- 机器人旋转七轴传送
  Rotary seven-axle robot transmission

- 机器人侧移
  Robot lateral movable

- 机器人随动传送
  Robot synchronous movable

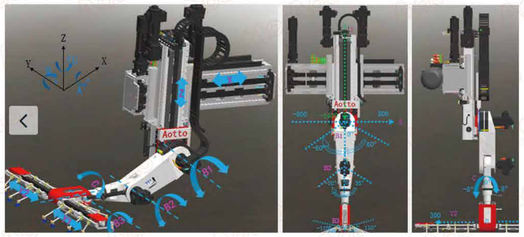
自动化生产线模块单元

STANDARD UNITS OF STAMPING AUTOMATION SYSTEM

压力机之间传送 | Transmission between presses

产品特点 | Product feature

- 高效率，冲压次数13-15spm
  High efficient, speed up to 13-15spm
- 应用广，适用于压机间距5.5-8m
  Wide application，Suitable for press spacing 5.5-8m
- 可上奥图云
  Remote Monitoring



- 高速冲压机器人
  High speed press robot

线尾部分 | EOL

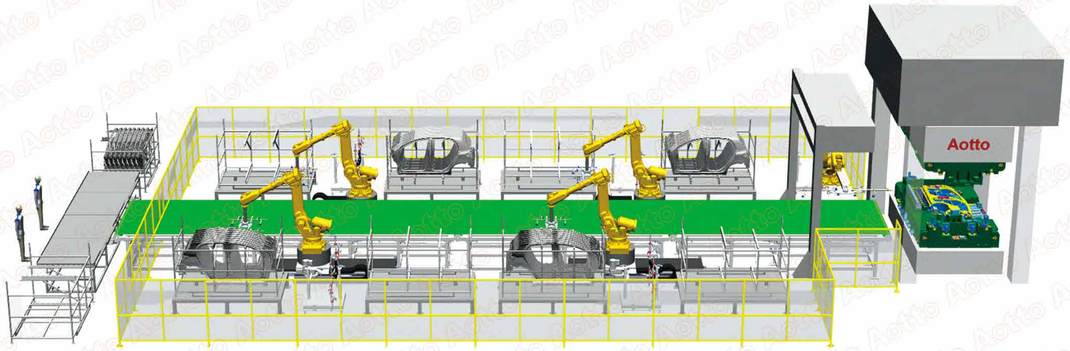
冲压自动化线的线尾单元主要包含自动装筐系统、工件分流系统、照明系统等模块单元以及皮带机、检验台等自动化线辅机设备等。

EOL unit of stamping automation line mainly consists of module units such as automated finished part stamping system, distribution system and illumination system, and automatic line auxiliary equipment such as belt conveyor and inspection table.

冷加工自动化解决方案

冲压线线尾自动装筐系统

AUTOMATIC STACKING SYSTEM FOR STAMPING LINE



冲压线线尾自动装筐系统是集板料的视觉定位、皮带传输、码垛装筐和物流仓储等工艺于一体的自动化生产线。主要包括：视觉对中系统、输送皮带机、码垛平台及料筐、机器人、端拾器、检验平台、安防系统、AGV 小车(选配)和电气控制系统等。本系统可广泛应用于侧围、顶盖等汽车外覆盖件及内板件的机器人冲压线及单双臂冲压线的线尾。

Automatic stacking system for stamping line consists of module units such as vision system，belt conveyor，robot packing system and Logistics warehousing. It mainly includes: vision centering system，belt conveyor，pallet platform and material frame，robot，tooling，inspection table，safety guarding system，AGV (optional)，and electrical control system.This system can be widely used at the end of automatic stamping line.

产品特点 | Product feature

- 多台机器人协作，生产节拍快
  Multi-robot collaboration, productivity high
- 适用范围广，性能卓越
  Wide applicability, excellent performance
- 采用可视化编程，使用维护方便
  Use visual programming and easy maintenance
- 故障自诊断，系统稳定性高
  Self-diagnostics system，high stability of system

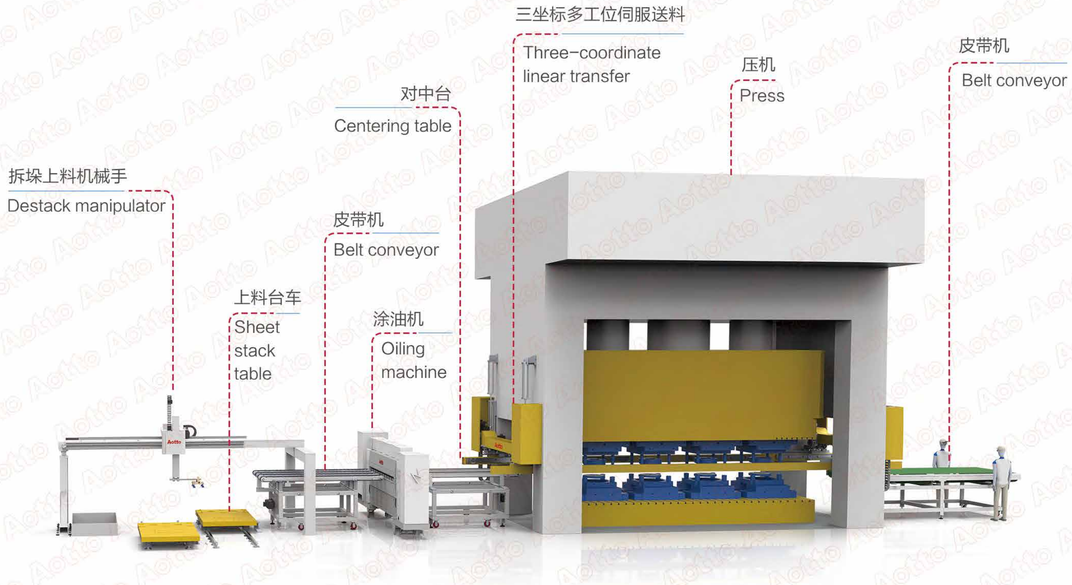
技术参数 | Technical parameter

- 运行节拍：8~12次/分钟
  Operating speed：8~12 SPM
- 满负荷运转寿命：≥15年
  Full load operating life: ≥15 years

成功案例 | Successful case

多工位冲压自动化生产线

TRANSFER PRESS AUTOMATION PRODUCTION LINE



产品介绍 | Product introduction

多工位自动化冲压生产线是压力机冲压自动化上下料系统的一种主要送料方式。该系统可实现一台或多台大型多工位压力机在工作过程中自动传送物料和工件，并按工艺顺序要求实现工件翻转等动作。

Linear transfer is one main feeding way of automatic stamping. The system can transfer or turnover sheet and work piece automatically within one multi-station press or between more presses according to process requirement.

我公司自主研发的多工位冲压生产线传输系统主要技术参数和性能指标均达到国内领先和国际先进水平，满足我国汽车行业对高效率冲压装备的迫切需求。

The specification and performance indexes of multi-station transfer press automation production line, developed by our company reach domestic leading and international advanced level, fulfill the need of automobile industry on high speed stamping equipment.

多工位冲压自动化生产线

TRANSFER PRESS AUTOMATION PRODUCTION LINE

产品特点 | Product feature

- 全线高动态性能
  Excellent dynamic performance
- 调整快速方便，适应性强
  Program easy, flexible
- 送料稳定，重复定位精度高
  Feeding stable, and repeated positioning accurately

技术参数 | Technical parameter

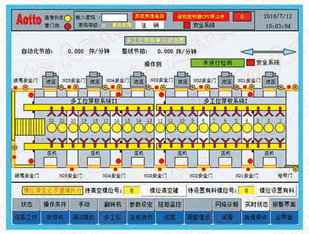
- 整线运转率:≥98%
  Whole line availability: ≥98%
- 运行节拍:10～25次/分钟
  Operating speed: 10-25 SPM
- 自动换模时间<5分钟
  Automatic die change time: <5 minutes

客户价值 | Value for the customers

- 提高产量和质量，降低生产成本
  Improve output and quality, and reduce production cost
- 降低操作人员劳动强度
  Reduce labor intensity
- 节约空间，提高自动化程度
  Save space
- 降低设备故障率和投资成本
  Reduce equipment failure rate and investment cost

- 拆垛机械手与上料台车
  Destacker manipulator and sheet stack table

- 三坐标多工位伺服送料
  Tri-coordinate linear transfer



- 主控制台操作界面
  HIM on main operation station

汽车纵梁冲压自动化系统

TRUCK BEAM STAMPING AUTOMATION SYSTEM

多柱液压机汽车纵梁冲压自动化系统

Multi column hydraulic press truck beam stamping automation system

针对多柱液压机侧面上料的特点，我公司研制推出ATFT系列载重梁自动化上下料系统，具有机械手拆垛、输送辊道输送、涂油机涂油、自动推料手上料、成品料自动输出等功能，可节省大量人力，同时提高了设备的生产效率。

For side feeding feature of multi column hydraulic press, Aotto developed ATFT series truck beam automation loading and unloading system, which has functions such as manipulator destack, feeding by delivery roll, oil spray by oiling machine, material loading by automatic pusher and automatic output of finished parts, saves large quantity of labor, and improves production efficiency of equipment.

机械压机汽车纵梁冲压自动化系统

Mechanic press truck beam stamping automation system

公司设计制造的多机器人载重梁自动化上下料系统，是国际首套高端载重梁自动化系统，该系统与大吨位机械压力机配套，采用多机器人联动、视觉识别定位、七轴伺服送料、板料自动翻转、工件自动离线抽检、脉冲电磁拾取等新技术，实现整线的高速全自动化生产。

Multi-robots truck beam automation loading and unloading system, which developed by Aotto, work with large capacity mechanic press, uses new technologies such as multi-robotic synchronous, visual identification and positioning, additional robotics seven-axle, automatic turnover of sheet metal, automatic offline sampling check of work piece , electromagnetic pickup, and realizes high speed and automatic production of whole line.

机加工自动化上下料系统

MACHINING AUTOMATIC LOAD AND UNLOAD SYSTEM

机加工自动化上下料系统采用桁架机械手或关节机器人方式集成，两种方式均采用模块化设计，控制方式独立，组线灵活方便，可以与单台设备组成一个独立的自动化单元，也可以实现多台设备连线运行，完成零件多个工序的加工和搬运，适合加工节拍高、生产批量大的场合。通过采用不同的手爪夹具，可以完成对圆盘类、轴类、不规则形状类、板类等工件的自动化上下料、工件翻转、工件转序等工作。自动化系统整体布局简单，安装调试方便，能够进行快速上下料工作，提高生产效率，避免了传统生产模式中人为因素对节拍及产品质量产生的不可控影响。

The system integrate gantry manipulator or robot, both of them adapted modular design, and control independently, can form one independent automation cell with single machine, also can integrate several machines, realize multi-station processing and handling of parts.It is suitable for applications with high processing speed and large production batch. By using different grips and fixtures, it can load, unload , turnover and transfer of work pieces with difference shapes such as disk type, axle type, irregular shape type and plate type, The automation system has simple overall layout ,installing and commissioning easily, can make quick material loading and unloading, improves production efficiency, and avoids uncontrolla-ble influence of human factor on production and quality in traditional production mode.

Atrey LBL系列高级激光落料生产线

Atrey LBL SERIES LASER BLANKING LINE

产品介绍 | Product introduction

激光落料生产线是继开卷剪切落料、冲压落料之后，最新型的金属板材落料生产方式，以多台并行工作的激光切割机为核心，对汽车等行业所用的金属板材，连续输送、切割，实现从卷料到垛料的全制造流程，具有高柔性、高精度、低成本等显著特点。

The laser blanking line is the latest metal sheet blanking production method after uncoiling blanking line and stamping blanking line. With multiple laser cutting machines working in parallel as the core, continuously conveys and cut the metal sheets used in the automobile and other industries, so realize the whole manufacturing process from coil loading to sheet unloading, with outstanding characteristics such as high flexibility, high precision, and low cost.

依赖于奥图创新式的多切割头并行协同技术，对各类板材均能进行高质量的切割，特别适合于多品种、小批量的产品生产应用。

Relying on Aotto's innovative multi-cutting head parallel collaboration technology, the LBL series laser blanking line is especially suitable for the production of multi-variety and small-batch products.

产品优势 | Product advantage

- 应用范围广，可加工铝、高强钢及表面特殊处理的板材；
  Wider application, able to process aluminum material, high strength steel and Pre-treated sheet metal；
- 不需模具，投资少，运维成本低，材料利用率高；
  No molds, low investment, low operation and maintenance costs, and high material utilization；
- 低噪音、低振动、低能耗，节能环保；
  Low noise, low vibration, low energy cost, energy saving and environment- friendly；
- 图形到工件、所见即所得，缩短新产品周期。
  Graphic to workpiece, what you see is what you get, shorten the cycle of new products.
- 无毛刺、板材表面及断面质量高；
  No burr, high quality surface and cross section；

参数表 | Specification

板材类型 / Material	钢、铝、高强钢等 Steel, Aluminum, High-strength Steel
加工形式 / Produce method	连续送料切割 Continuous feeding
加工板长 / Length of sheet metal	任意长度 Any length
加工板宽 / width of sheet metal (mm)	400～2100可选 400~2100 (optional)
激光器功率 / Laser Power (kW)	3～8
切割头数量 / Quantity of cutting head	3/2个可选 3 or 2 (optional)

CBW系列干式板料清洗机

CBW SERIES CROSS BRUSH WASHER

产品介绍 | Product introduction

CBW 系列干式板料清洗机主要用于汽车铝板冲压成型前的清洗工序，毛刷快速横向刷扫板料，无需清洗油，避免了铝板的表面氧化，提高板料质量。

CBW series cross brush washer is used in the cleaning process of automotive aluminum sheet stamping and forming. The brushes clean the metal sheet quickly from the horizon direction , non oiling avoid the oxidation of alyminum sheet surface and improve the quality of the sheet.

- 专为铝板设计 | Designed for aluminum plate
- 无油清洗 | Oil-free cleaning
- 可上奥图云 | Remote Monitoring

CBW系列干式板料清洗机（参数表）| Specification

型号 / Type	CBW-2000	CBW-3000	CBW-4000
最大板料宽度 / Max. sheet width (mm)	2000	3000	4000
最小板料长度 / Min. sheet length (mm)	400		
适用板料厚度 / Sheet thickness (mm)	0.5~3		
生产线速度 / Production line speed (m/min)	60~130		
毛刷带清洗速度 / Brush belt cleaning speed (m/min)	60~120		
毛刷带数量（根）/ Number of brush belts	4		
油雾收集 / Oil mist collection	机械式 / Mechanical type		
离线功能 / Offline function	标配 / Yes		

ABW系列板料清洗机

ABW SERIES BLANK WASHER

产品介绍 | Product introduction

ABW系列板料清洗机主要用于汽车钢板冲压成型前的清洗工序，经过清洗后的钢板不仅能去除表面的灰尘杂物，还能在其表面均匀地涂上一层防锈油膜，从而增加钢板冲压成型时的润滑性，提高板料的冲压质量。

ABW series blank washer is mainly used in cleaning process before sheet metal stamping, the washed sheet metal not only can remove dust and foreign object from surface, but also can apply a layer of rust preventing oil film to its surface uniformly so as to increase lubricity during drawing formation, and to improve stamping parts quality.

- 适用于自动化冲压线的板料清洗，能在整线速度60~150m/min的情况下稳定运行。
  Suitable for washing sheet metals in automatic stamping line. The operate speed of whole line is between 60~150 m/min.
- 采用两级挤干结构，可将板料表面油膜控制在0.8～1.5g/m²。
  With two-stage squeezing mechanism, the plate surface oil film can be controlled within 0.8~1.5 g/m².
- 采用上下箱体分离结构，上部箱体可以电动升降，当板料因毛刺过大或变形卡在清洗机内部时，可以快速取出卡料，恢复生产。
  With separation body structure, the upper body can be elevated electrically. If a sheet metal was jammed in washing machine due to too large burr or deformation, the jammed sheet can be taken out quickly, and production is resumed.
- 挤干辊可以磨细维修，重新调整驱动变频电机的速度后继续使用，降低了使用成本。
  Squeezing rolls can be grinded individually after weariness, so could continue working after resynchronizing the motor speed, reduce operating cost.
- 采用无纺布引入辊代替聚氨酯引入辊，有效解决入口油液喷溅问题，提高清洗效果，使生产更加环保。
  Non-woven fabric pinch rolls is used to replace polyurethane pinch rolls, solves inlet oil spraying problem effectively, improves cleaning effect, and makes production more environmental protection.

ABW系列板料清洗机

ABW SERIES BLANK WASHER

技术特点 | Technical feature

- 分体可调式机身 | Separate adjustable machine body
- 独立变频电机驱动 | Independent variable frequency motor driving
- 二级挤干结构 | Two-stage squeezing structure

- 上下箱体可以电动分离
- 引入辊、刷辊、挤干辊速度独立可调
- 油箱可移出，方便清理
- 具有二级挤干结构
- 中文触摸屏人机界面，方便操作维护
- 拥有外观设计专利 ZL201530261866.3

- Upper body can be elevated electrically
- Speed of pinch roll, brush roll and squeezing roll is independent and adjustable
- Oil tank can be pulled out of line for clearing
- Two-stage squeezing mechanism
- Chinese & English version touch screen HMI is convenient for operation and maintenance
- With Design Patent, No. ZL201530261866.3

冷加工设备配套产品

ABW系列板料清洗机（参数表）| Specification

型号 / Type	ABW3-2000	ABW4-4200
最大板料宽度 / Max. sheet width (mm)	2000	4200
最小板料长度 / Min. sheet length (mm)	650	800
适用板料厚度 / Sheet thickness (mm)	0.5~2.5	
生产线速度 / Production line speed (m/min)	60~150	
油膜厚度 / Oil film thickness (g/m²)	0.8~1.5	
引入辊数量 / Pinch roll quantity	2根（1对）/ 2 (1 pair)	
引入辊材质 / Pinch roll material	进口无纺布 / Importing non-woven fabric	
刷辊数量 / Brush roll quantity	2根（1对）/ 2 (1 pair)	
刷辊材质 / Brush roll material	高密度尼龙刷 High density nylon brush	
挤干辊数量 / Squeezing roll quantity	2根（1对）/ 2 (1 pair)	4根（2对）/ 4 (2 pairs)
挤干辊材质 / Squeezing roll material	进口无纺布 / Importing non-woven fabric	
油雾收集 / Oil mist collection	机械式 / Mechanical type	
离线功能 / Offline function	标 配 / Yes	
清洗油过滤精度 / Washing oil filter accuracy (μm)	20	
油品过滤 / Washing oil filter	双筒过滤器（标配）/ Double drum filter (standard), 离心式净油机（可选）/ Centrifugal type oil purifier(optional)	
外形尺寸 / Dimension L*W*H (mm)	5715*1383*2670	8186*1828*2944
重量 / Weight approx. (Ton)	12	30

ABS系列板料涂油机

ABS SERIES BLANK OILER

产品介绍 | Product introduction

ABS 系列板料涂油机主要用于汽车钢板冲压成型前的涂油工序，可根据工艺要求对钢板表面进行定区域、定量喷涂拉延油，保证工件拉伸质量。

ABS series blank oiler is mainly used in oil applying process before sheet metal stamping, and can apply drawing oil to specific area on the sheet metal surface according to technological requirements so as to ensure work piece tension quality.

- 采用中文人机界面，完善的自诊断系统，外掀式架构设计及独特的皮带传动方式，更方便客户操作与维护。
  Use Chinese & English vision HMI, perfect self-diagnostic system, outward opening type structure and unique belt driving, more convenient for the customer to operate and maintain the machine.
- 可对每个喷枪独立编程、精确控制油膜厚度和喷涂区域，既节约成本，又保证工件质量。
  By controlling each individual spray nozzle, the oil film thickness and spraying area can be accurately controlled, saves cost, and ensures work piece quality.
- 具有油箱加热，及油路保温功能，确保喷涂不受外界环境影响，避免了因涂油机油温不稳定造成的喷涂量变化。
  With oil tank heating and oil pipe heat preservation function, the spraying oil quantity is stable.
- 采用静电式油雾收集器，有效避免油雾溢出造成的环境污染。
  With electrostatic oil mist collector, avoiding the environmental pollution caused by oil mist overflow.

冷加工设备配套产品

ABS系列板料涂油机

ABS SERIES BLANK OILER

技术特点 | Technical features

- 外掀式结构 | Outward opening type structure

- 可编程控制喷涂 | Programmable spraying

- 静电式油雾收集器 | Electrostatic oil mist collector

1	油膜厚度控制在1～5g/m²	Oil film thickness is controlled to 1~5 g/m²
2	静电式油雾收集器	Electrostatic oil mist collector
3	喷油量自动控制	Automatic control of oil spraying quantity
4	配置油路保温功能	Oil pipe heat preservation function
5	中文触摸屏人机界面	Chinese & English vision touch screen HMI
6	拥有外观设计专利 ZL201530049418.7	With Design Patent, No. ZL201530049418.7

ABS系列板料涂油机（参数表）| Specification

型号 / Type	ABS-2000	ABS-3000	ABS-4200
最大板料宽度 / Max. sheet width (mm)	2000	3000	4200
最小板料宽度 / Min. sheet width (mm)	150		
适用板料厚度 / Sheet thickness (mm)	0.5~2.5		
生产线速度 / Production line speed (m/min)	60~150		
油膜厚度 / Oil film thickness (g/m²)	1~5		
系统过滤精度 / System filter accuracy (μm)	10/20 (可选 / Optional)		
喷油方式 / Oil spraying method	单 / 双面喷涂 Single / double side spaying		
喷油区域 / Oil spraying area	可编程控制 / Programmable control		
油雾收集 / Oil mist collection	静电式 / Electrostatic type		
油温控制 / Oil temperature control	标 配 / Standard		
离线功能 / Offline function	标 配 / Standard		
外形尺寸 / Dimension L*W*H (mm)	5455*660*2570	7175*660*2430	8375*660*2620
重量 / Weight approx. (Ton)	3	4	5

ABT系列垛料翻转机

ABT SERIES BUNDLE TURNOVER

产品介绍 | Product introduction

ABT 系列垛料翻转机是用于整垛板料翻转的专用设备。适用于汽车生产、钢材配送等多种行业。
ABT series bundle turnover is specially designed for turning sheet bundle, usually be used with blanking lines in automobile industry and steel plate distribution industry.

ABT 系列垛料翻转机采用 PLC 控制，触摸屏人机界面操作，具有完整的安全保护系统和故障诊断系统。根据夹紧方式的不同，设备可分为气囊式夹紧和液压缸夹紧两种型式。两种夹紧方式均可自动调整夹紧力，杜绝板料滑落。气囊式夹紧结构夹紧力柔和，环保不污染板料，为高端选择。
ABT series bundle turnover machine uses PLC control and touch screen HMI operation, and has complete safety guarding system and self-diagnostic system. According to different clamping method, the bundle turnover can be divided into two types: Pneumatic clamping and hydraulic clamping. Both the two clamping method can adjust clamping force automatically. As Pneumatic clamping force more gently and environmental more friendly, and so is the better choice.

ABT系列垛料翻转机适应侧边上下料。
ABT series material bundle turnover machine suits side in and side out.

ABT系列垛料翻转机

ABT SERIES BUNDLE TURNOVER

技术特点 | Technical feature

- 专用设备，质量可靠
  Special equipment with reliable quality
- 夹紧力可调，适用范围广
  Adjustable clamping force, and wide application range
- 触屏人机界面
  Touch screen HMI
- 完善的故障诊断系统
  Perfect self-diagnosis system

ABT系列垛料翻转机(参数表) | Specification

最大翻转吨位 / Max. turnover capacity (Ton)	10		15
最大翻转长度 / Max. turnover length (mm)	4000		4500
最大翻转宽度 / Max. turnover width (mm)	2000		
结构形式 / Structure	O 型 / O type		
夹紧形式 / Clamping	气动 Pneumatic	液压 Hydraulic	液压 Hydraulic
外形尺寸 / Dimension L*W*H (mm)	9560*3700*3720	9560*3500*4220	10390*3500*4220
重量 / Weight (Ton)	23	24	25

成功案例 | Successful case

经典系列电动无轨重载运输车

AHC SERIES ELECTRIC HEAVY-DUTY VEHICLE

产品介绍 | Product introduction

经典系列电动无轨重载运输车是我公司自主研发设计制造，适用于机械制造、汽车工业、重工制造、模具制造、工程机械、船舶制造、港口货场、钢铁配送、矿山运输、航空航天、军工等行业的新型转运设备。特别适用于重载、繁忙的工业应用。

AHC series electric heavy-duty vehicle is developed to transport heavy duty parts in industries such as machinery manufacturing, automobile industry, heavy industry manufacturing, mold manufacturing, construction machinery, ship building, port goods yard, steel plate distribution, mine transportation, aerospace and military industry.

- 整车采用蓄电池供电、交流电机驱动，承载力大，启动稳定，不依赖导轨，可实现双向行驶。液压转向机构保证了较小的转弯半径，可在较小空间内实现转向。
  The vehicle uses battery to supply power, AC motor driving, with large load bearing and smoothly start and stop, no guide rail, and bidirectional driving. Hydraulic steering mechanism ensures small turning radium, making it possible to steer in small space.
- 整车安装有防撞安全保护装置和声光报警系统。采用电磁制动，响应速度快，制动距离短。根据承载吨位不同可选配聚氨酯或无内胎橡胶轮，车轮不损坏车间地面涂层。
  The vehicle is installed with anti-collision protection device and audible and visual alarm system. With electromagnetic braking system, the vehicle can response quickly, and with short braking distance. In order to protect the floor surface, polyurethane or tubeless rubber wheels could be selected according to different capacities.
- 车辆标配有两组电池，可轮流使用，保证车辆的持续运行。配备专用的电池更换车，可快速完成电池更换。
  To ensure continuous operation of the vehicle and exchange battery quickly, two sets of batteries and one special battery change cart will be within the standard supply scope.

产品特点 | Product feature

- 不依赖导轨运行
  No guide rail for operation
- 可双向行驶
  Bidirectional driving
- 交流驱动，维护费用低
  AC driving and low maintenance cost
- 转弯半径小，操作灵活
  Small turning radium and flexible operation
- 可遥控亦可线控
  Remote control and wire control
- 制动距离短，安全性能高
  Short braking distance and high safety performance

经典系列电动无轨重载运输车

AHC SERIES ELECTRIC HEAVY-DUTY VEHICLE

经典系列电动无轨重载运输车（参数表）| Specification

主参数 Main Parameter	(1)额定负载 Rated Load (Ton)	30	50		
	(1)台面尺寸 Table Size L*W (mm)	4600*2500	5000*2500	4600*2500	5000*2600
驱动与转向 Drive & Steering System	轮组结构及动力 Steering Control& Power	舵轮，液压 Steering Wheel，Hydraulic			
	驱动&转向轮数量 Driving & Steering Quantity	2驱动+2转向 2 Driving Wheels + 2 Steering Wheels		1驱动+4转向 1 Driving Wheel + 4 Steering Wheels	
	驱动电机类型 Driving Motor	交流电机 AC Motor			
移动 Moving	低速 Low Speed (m/min)	0-15 柜内调整（adjustable within electric cabinet)			
	高速 High Speed (m/min)	15-30 柜内调整（adjustable within electric cabinet)			
	行驶 Moving Direction	直行/转向 Straight / Steering			
	最小转弯半径 Min.Turning radius (mm)	5200		5000	
	爬坡 Climbing Ability	≤3%			
控制方式 Control Mode	手动 Manual	线控/专用无线遥控器控制 Wire control / dedicated wireless remote control*			
安全保障 Safety	急停按钮数量 Emergency Stop	4			
	激光扫描仪 Laser Scanner*	2			
	防撞梁 Safety Beam	2			
电源保障 Power Source	电池类型 Battery Type	铅酸电池 Lead-acid battery			
		锂电池 Lithium battery*			
	(1)电池容量 Battery Capacity (AH)	270	400 / 875		
	电池电压 Battery Voltage (V)	48			
	(1)充电机电源 Charger Power (V)	3相 3 phase，380；50Hz			
	满载续航距离 Full-Load Endurance distance (m)	≥2000			
车身参数 Body Parameter	(1)外形尺寸 Outline L*W*H (mm)	4600*2500*980	5000*2500*1000	4600*2500*980	5000*2600*980
	自重（约）Weight approx. (Ton)	7.5	9	9.5	10

说明：1. 带*项均为可选项
2. 标(1)的参数可根据客户需求定制
3. 订货格式：AHC□□-□
└ 车辆配置 B:标准机型；H:高配机型
└ 车辆额定载重
如：50吨标准运输车，订货规格：AHC50-B；
30吨高配运输车，订货规格：AHC30-H；
B 标准机型：国产激光扫描仪
H 高配机型：进口安全激光扫描仪+安全继电器

Remarks：1. Items with * are options
2. Parameters with (1) could be tailored
3. Order format : AHC□□-□
└ Configuration B: Basic; H: High
└ Capacity
Example : 50T Standard Cart, Order No. is AHC50-B
30T High configured Cart, Order No. is AHC30-H
B Basic configured : Laser scanner from China
H High configured : Exported safety laser scanner and safety relay

冷加工设备配套产品

智行系列全电动重载运输车

AIC SERIES ELECTRIC HEAVY-DUTY VEHICLE

产品介绍 | Product introduction

智行系列全电动重载运输车是济南奥图自动化股份有限公司推出的新型重载运输车。可广泛应用于机械制造、汽车工业、重工制造、模具制造、工程机械、船舶制造、港口货场、钢板配送、钢铁冶金、矿山运输、航空航天、军工等行业。

AIC series electric heavy-duty vehicle can be widely used in machinery manufacturing, automobile industry, heavy industry manufacturing, mold manufacturing, engineering machinery, shipbuilding, port cargo yard, steel plate distribution, steel metallurgy, mining transportation, aerospace, military industry and other industries, etc.

产品特点 | Product feature

- 载重10~100T
  Capacity 10~100T
- 四轮伺服驱动、伺服转向，爬坡可达5%
  Four-wheel servo driven, servo steering, climbing up to 5%
- 0-360° 任意旋转，多种移动模式（横向、纵向、斜向）
  0-360° arbitrary rotation, multiple movement modes (horizontal, vertical, diagonal)
- 可配置自动巡航（磁条、激光、二维码、北斗）
  Navigable by magnetic stripe, laser, QR code or Beidou
- 搭载Aotto智造云，手机APP监控设备参数，实现预测性维护、线上管理
  Equipped with Aotto Smart Cloud, monitor device parameters by mobile APP, so make predictive maintenance and online management possible

冷加工设备配套产品

智行系列全电动重载运输车

AIC SERIES ELECTRIC HEAVY-DUTY VEHICLE

智行系列全电动重载运输车（参数表）| Specification

主参数 Main Parameter	(1)额定负载 Rated Load (Ton)	10	20	30	50	70	100
	(1)台面尺寸 Table Size L*W (mm)	4500*2500		5000*2650			6000*3000
驱动 Drive System	轮组结构 Steering Control	舵轮 Steering Wheel					
	驱动单元数量 Driving & Steering Quantity	2驱动+4转向 2 Driving Wheels + 4 Steering Wheels		4驱动+4转向 4 Driving Wheels + 4 Steering Wheels			
	电机类型 Motor	直流伺服电机 DC Servo Motor					
移动 Moving	空载速度 No-load Speed (m/min)	0-30					
	满载速度 Full-load Speed (m/min)	0-24					
	行驶 Moving Direction	直行/横行/斜行/原地360° 旋转 Straight / Horizontal / Oblique / Situ 360° rotation					
	爬坡 Climbing Ability	≤5%					
导航 Guide*	方式 Guide Mode	激光导航/磁钉导航/色带导航/二维码导航 Laser / Magnetic nail / Ribbon / QR code					
	精度 Accuracy	±10mm					
控制方式 Control Mode	手动 Manual	线控/专用无线遥控器控制 Wire control / dedicated wireless remote control					
	自动 Automatic	根据工艺规划，系统自动规划 Route automatically planned according to process requirement					
通讯 Communication	有线 Wire	CAN/Ethernet					
	无线 Wireless	WIFI					
安全保障 Safety	急停按钮数量 Emergency Stop	4					
	激光扫描仪 Laser Scanner	2					
	防撞触边 Safety edges	全方位 All Around the Body					
	防撞梁 Safety Beam*	2					
	3D视觉避障 3D Visual obstacle avoidance*	2					
电源保障 Power Source	电池类型 Battery Type	锂电池 Lithium battery					
	(1)电池容量 Battery Capacity (AH)	200		400		800	
	电池电压 Battery Voltage (V)	48					
	(1)充电机电源 Charger Power (V)	3相 3 phase，380；50Hz					
	充电机输出 Charger Output	48V/150A					
	充电时间 Charging Time	0%~100% 3小时，15%~95% 2小时 3 hours for 0%~100% ; 2 hours for 15%~95%				0%~100% 4-5小时，15%~95% 3小时 4-5 hours for 0%~100% ; 3 hours for 15%~95%	
	满载续航距离 Full-Load Endurance distance (m)	≥2000					
	电池寿命 Battery Life	满充满放1500次 Fully charged and discharged 1500 times					
	自动在线充电 Online Charging*	仅在导航模式下有效 Selectable only under guide mode					
	自动在线换电池 Online Battery Change*	仅在导航模式下有效 Selectable only under guide mode					
车身参数 Body Parameter	(1)外形尺寸 Outline L*W*H (mm)	4500*2500*650		5000*2650*950	5000*2650*1070		6000*3000*1200
	自重（约） Weight approx. (Ton)	4	5	6	8	10	12

说明：1. 带*项均为可选项
2. 标(1)的参数可根据客户需求定制
3. 订货格式：AIC□□-□
└ 车辆配置 B:标准机型；H:高配机型；S：超配机型
└ 车辆额定载重
如：50吨标准运输车，订货规格：AIC50-B；
30吨高配运输车，订货规格：AIC30-H；
B 标准机型：国产伺服电机、驱动
H 高配机型：进口伺服电机、驱动
S 超配机型：进口伺服电机、驱动、安全继电器、安全扫描仪

Remarks：1. Items with * are options
2. Parameters with (1) could be tailored
3. Order format : AIC□□-□
└ Configuration B: Basic; H: High; S: Super
└ Capacity
Example : 50T Standard Cart, Order No. is AIC50-B
30T High configured Cart, Order No. is AIC30-H
B Basic configured : Servo motors and drivers from China
H High configured : Servo motors and drivers from Europe and America
S Super configured : Servo motors and drivers from Europe and America, and with safety relays and safety laser scanner

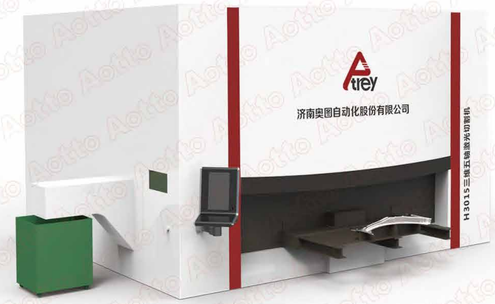
Atrey H系列三维五轴激光切割机

Atrey H SERIES 3D FIVE-AXLE LASER CUTTER

产品介绍 | Product introduction

H系列三维五轴激光切割机，具有足够的刚性、耐磨、抗震性能，满负荷运转下能保持其高精度、高效率、低噪音的良好性能。设备的稳定性和加速性能好。

H series 3D five-axle laser cutter has enough rigidity, wearing resistance and shock resistance, and can keep its high accuracy, high efficiency and low noise under full load. The equipment has good stability and acceleration performance.



产品特点 | Product feature

主要用于精密切割，具有复杂曲面的三维零件特别适合于航天及汽车覆盖件的切边、切孔等切割加工，可取代传统的修边模和穿孔模，实现三维工件高质量、高精度、高效率切割，无需二次加工。

It is mainly used in precise cutting of 3D part with complex curved surface, is especially suitable for edge and hole cutting of aerospace and automobile covering part, is able to replace traditional trimming die and perforating die, and realizes cutting of 3D work piece with high quality, accuracy and efficiency, and secondary processing isn't necessary.

参数表 | Specification

型 号 Model	Atrey H3015	Atrey H4020	Atrey H6020
加工幅面 / Processing amplitude (mmxmm)	3000x1500	4000x2000	6000x2000
加工零件 / Fabricated part	各种曲面体 Various curved bodies		
X轴行程 / Max. processing size	3000	4000	6000
Y轴行程 / Y-axis travel	1500	2000	
Z轴行程 / Z-axis travel	600		
A轴行程 / A-axis travel	±135°		
C轴行程 / C-axis travel	±n×360°		
X、Y、Z快移速度 / X, Y, Z fast moving speed (m/min)	100		
机床定位精度 / Positioning accuracy of machine tools (mm)	0.06mm		
重复定位精度 / Repetitive positioning accuracy (mm)	0.03mm		
X、Y、Z轴最大加速度 / Maximum acceleration of X, Y, Z axis	1.5G		
数控系统 / Numerical control system	BECKHOFF		
工作台 / Staging	旋转/移动工作台 Revolving / moving worktable		
激光器类型 / Laser medium	光纤 Fibre-optical		
激光器功率 / Laser power (W)	1000～3000		
设备电力需求 / Equipment power demand	380VAC±10%/50Hz		
设备重量（约）/ Weight approx. (Ton)	6	7	8
主机尺寸(长x宽x高/mm) / Host size L*W*H (mm)	6500x4500x4000	7500x5000x4000	9500x5000x4000

Aovita 端拾器

Aovita TOOLING

奥图股份作为国内冲压自动化行业的领导者，为了更好地为客户提供全面优质的自动化集成服务，于2016年重磅推出了Aovita端拾器。Aovita端拾器以“专业精工、八玲珑”作为产品定位及发展目标，致力于打造成为端拾器行业第一品牌。

In order to provide overall outstanding automation integration service to the customers better, Aotto Company, as the leader of domestic stamping automation industry, released Aovita tooling system in 2016. Aovita tooling regards “being professional, fine and exquisite” as product orientation and development target, and makes efforts in creating the first brand in tooling industry.

专业精工 八玲珑

优势 | Advantage

- 冲压专家：依托奥图强大的技术实力，专业端拾器团队为客户提供全面优质的解决方案。
  Stamping expert: Rely on Aotto's powerful technical strength and professional tooling team to provide overall outstanding solutions to the customers.
- 专注冲压：专注于冲压行业，为客户提供全面优质的端拾器产品。
  Concentrating on stamping: Concentrate on stamping industry, and provide overall outstanding tooling products to the customers.
- 精工质量：设计考虑全面，质量把控严格，产品质量可靠。
  Fine workmanship: Design makes fully consideration, quality control is strict, and product quality is reliable.
- 精确替换：产品全面，适用广泛，可灵活选型，精确替换客户现有产品。
  Perfect replacement: flexible applications, wide options, accurately replace customers' existing products.
- 精致美观：推出“土豪金”系列连接件，外观精巧细致，美观大方。
  Exquisite exterior: Release “luxury gold color” series connectors, delicate and elegant.
- 精益求精：对技术精益求精，对创新精益求精，对外观精益求精，对服务精益求精。
  Keeping on improving: Keep on improving technology, innovation, appearance and service.

产品种类 | Product type

- AOVITA-C 碳纤维系列端拾器： 该系列产品相对于传统铝型材端拾器具有重量轻、刚性好的优点，使自动化线运行更为灵敏，稳定性好，适用于工件较大、速度较快的自动化生产线。
  Aovita carbon fiber series tooling: By comparing to traditional aluminum section tooling, the series product has the advantages of small weight and good rigidity, makes automation line operation more flexible, and stability, is suitable for automatic production line with large work piece and quick speed.
- AOVITA-A 铝型材系列端拾器： 该系列端拾器可满足自动化生产需要，性价比高，适用于工件较小、速度较慢的自动化生产线。
  Aovita aluminum series tooling: The series tooling can meet the need of automation production, has high performance-price ratio, and is suitable for automatic production line with small work piece and slow speed.

冷冲压端拾器的应用 | Application of cold stamping tooling

- 机器人端拾器
  Robotic tooling

- 单臂机械手端拾器
  Single arm manipulator tooling

- 高速机械手端拾器
  High speed manipulator tooling

- 特殊端拾器
  Customer design tooling

多工位端拾器的应用 | Application of transfer stamping tooling

- 多工位端拾器 / Transfer tooling

- 多工位托铲端拾器 / Transfer dragline tooling

- 多工位夹钳端拾器 / Transfer clamp tooling

热冲压端拾器的应用 | Application of hot stamping tooling

- 磁性吸盘端拾器 / Magnetic chuck tooling

- 夹钳端拾器 / Clamp tooling

Aovita 机器人工具快换装置

Aovita ROBOT TOOL QUICK CHANGE DEVICE

产品价值 | Product value

- 实现机器人的一机多用，减少机器人数量，节省投资
- 机器人工具切换时间短，提高机器人利用率，提高生产效率
- 提高生产线柔性，可快速拓展新产品，适应于多品种小批量产品的生产

- One robot can handle multiple jobs, lower investment.
- Shorter tool change time, Improve robot utilization and increase production efficiency.
- High flexibility, easy to expand new products, Suitable for multi-variety and small-batch products.

产品介绍 | Product introduction

产品优势 | Product advantage

- 极高的重复定位精度，保障生产的一致性
  Extremely high repeat positioning accuracy to ensure the consistency of production.
- 强大的锁紧力，保障连接的稳定和安全
  High locking force to ensure the stability and safety of the connection.
- 进口弹簧信号接触针，电气连接稳定、寿命长
  Stable electrical connection and longer life.
- 多种介质模块，满足各种应用需求
  A variety of media modules to meet various application needs.
- 机械式断气自锁结构，保障人员及产线安全
  The mechanical air cut-off and self-locking structure guarantees the safety of personnel and equipment.

机器人工具快换装置

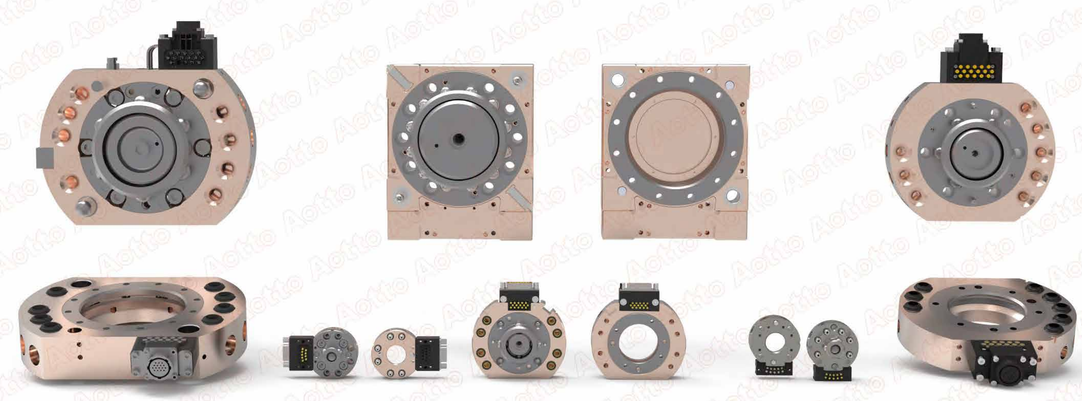
ROBOT TOOL QUICK CHANGE DEVICE

产品型号表 | Specification

型号 Type	额定载荷 Load capacity (Kg)	弯矩 Bending moment (N.m)	扭矩 Torque (N.m)	锁紧尺寸 Locking size (mm)	相应气孔 Corresponding hole
AQC-06	6	16.6	20	Φ50×37.5	6-M5
AQC-10	10	34.5	34.5	Φ50×35.5	6-M5
AQC-20	20	60	86.5	Φ95×42.4	8-G1/8
AQC-40	40	157	215	Φ115×62.1	8-G1/8
AQC-70	70	343	343	Φ129×60	8-G1/8
AQC-70H	70	343	443	Φ160×68.2	5-G3/8
AQC-100	100	686	686	Φ179×76.5	8-G3/8
AQC-120	120	820	820	Φ188×83	6-G3/8
AQC-200	200	1360	1270	Φ200×87	10-G3/8
AQC-300	300	2710	2260	Φ217×92.9	9-G3/8
AQC-300H	300	2710	2260	160×160×103	无
AQC-500	500	3290	3160	244×244×120	无
AQC-700	700	4900	3600	264×264×142	无

匠心品质 贴心服务 舒心价格

BETTER QUALITY & BETTER SERVICE & LOWER PRICE



Aosaff 安全防护围栏

Aosaff SAFETY GUARDING FENCE

Aosaff是奥图股份旗下的子品牌，专注于机器人及自动化生产线安全防护围栏的设计与制造，并以“致力创新、精工制作”作为产品定位及发展目标，为客户提供各类自动化安全防护整体解决方案和优质服务。

Aosaff is sub-brand under Aotto Company, concentrates on design and manufacture of robot and automatic production line safety guarding fence, regards“devoting to innovation and pursuing excellence”as product orientation and development target, and provides complete solutions and outstanding service of automatic safety guarding to the customers.

安全防护辅助选型系统 | SAFETY GUARDING ASSISTED SELECTION SYSTEM

针对围栏设计开发，实现“ 专软专用 ”，减少设计人员重复性劳动，实现需求一设计一生产的一体化、高效化。此系统已获申软件著作版权。

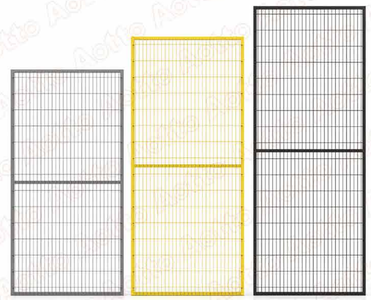
Aiming at the design and development of the fence,realizing "special software for special purpose", and reducing the repetitive labor of the designer.This system realizes integration and high efficiency, and has been granted with software copyright.

钢制围网及立柱防护

STEEL FENCE AND COLUMN PROTECTION

产品应用 | Product application

- 机器人及自动化生产线安全防护；
  Safety guarding of robot and automatic production line；
- 机床、机加工设备安全防护；
  Safety guarding of lathe and machining equipment；
- 仓储、物流、交通运输等人身安全和财产安全防护。
  Safety guarding of personal safety and property during storage, logistics and transportation.



- 独特焊接方法，横筋压入边框，焊接牢固美观
  Unique welding method,the transverse wire are pressed into the frame, firm and beautiful.

- 立柱 Post
- 光幕立柱 Light curtain post

冷加工设备配套产品

冲压智能制造系统

STAMPING INTELLIGENT MANUFACTURING SYSTEM

奥图智造云的冲压智能制造系统是一套针对冲压自动化生产线设计开发的精细化管理系统，此系统通过数据采集、存储和分析，并将信息实时反馈给决策层、执行层以便对生产过程、工艺及时做出调整，提升管理效率和生产效率。公司拥有先进的智能制造整体解决方案的专业团队和工业互联网平台的研发中心，已认定“高新技术企业”、“软件企业”等荣誉称号，拥有多款软件著作权。

AWIZ intelligent manufacturing system is one production information management system designed and developed by Aotto for automatic production line. By acquisition, storage, analysis and application of production data, the system feeds backs the information to decision level and executive level in real time so they can make timely response on production process and technology so as to improve production efficiency and quality. Aotto owns a variety of software copyrights.

产品优势 | Product advantages

通过冲压智能制造系统建设，助力企业提升冲压制造的柔性化、自动化、追溯性、数字化、可视化5个方面的精细化管理能力。

The stamping intelligent manufacturing system will help enterprises to improve the refined management capabilities of the five aspects for stamping manufacturing: flexibility, automation, traceability, digitization, and visualization.

可视化 Visualization

- 通过智能制造系统提供生产过程中的各类数据，引入先进的分析工具和多样化的报表，为管理工作提供科学的指导；
  Provide various data in the production process through the intelligent manufacturing system, introduce advanced analysis tools and diversified reports, and provide scientific guidance for management team;

数字化 Digitization

- 对生产设备及生产状态实时监控，工厂信息透明化，管理人员高效掌握生产情况，对异常事件做出快速反应；
  Real-time monitoring of production equipment and production status, transparent factory information, management personnel efficiently grasp the production situation, and quickly respond to abnormal events;

追溯性 Traceability

- 具备对冲压生产过程、坯料、设备等的追溯能力；
  Have the ability to trace the stamping production process, blanks, equipment, etc.;

自动化 Automation

- 支持快速的订单响应，满足多品种，小批量的生产要求；
  Support fast order response to meet the production requirements of multiple varieties and small batches;

柔性化 Flexibility

- 可配置和可拓展，满足当前产能需求，同时可支持未来的业务发展。
  Configurable and expandable to meet current capacity requirements and support future business development.

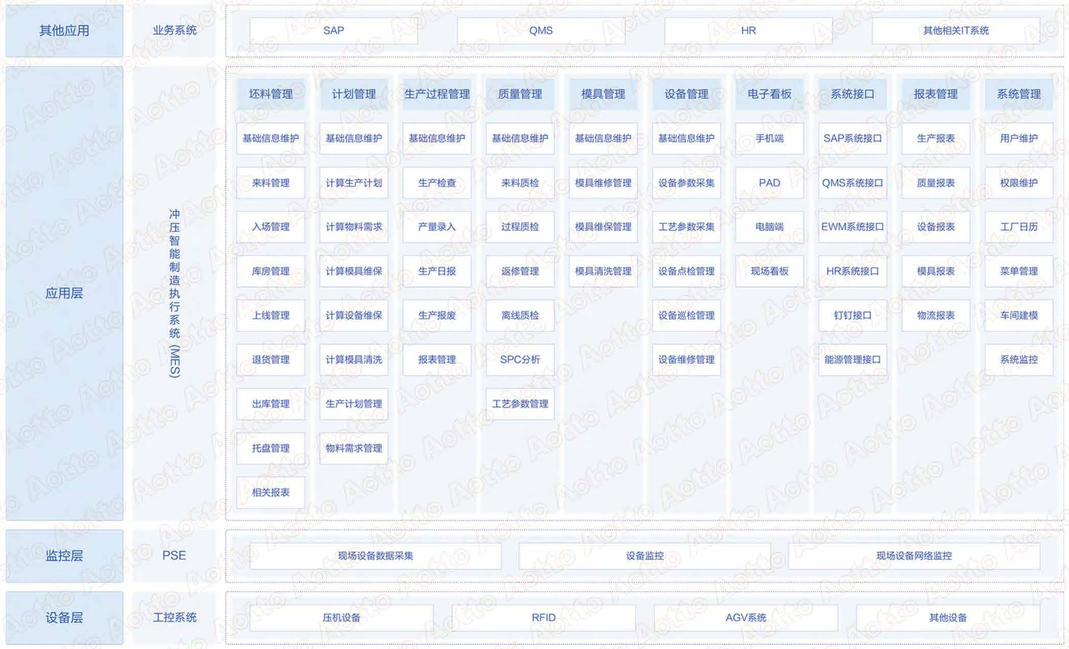
冲压智能制造系统

STAMPING INTELLIGENT MANUFACTURING SYSTEM

功能架构 | Functional architecture

奥图冲压智能制造系统做为新一代制造执行系统，通过生产、设备、质量、模具等无纸化管理，提升工厂资源配置效率和生产运营效率，实现核心生产制造环节的数字化转型。

Aotto Stamping Intelligent Manufacturing System improves the efficiency of factory resource allocation and production and operation through paperless management of production, equipment, quality, and molds, etc., and realizes the digital transformation of core manufacturing links.



客户价值 | Value of customer

提升管理、生产效率
Improve management and production efficiency

本系统可随时查看整个生产状态，并根据生产数据组合分析，提升生产效率和管理精度。

To view the entire production status at any time, and analyze the combination of production data to improve production efficiency and management accuracy.

生产数字化、精准化
Production digitalization and precision

生产记录无纸化，生产过程可追溯、透明化，生产过程数据闭合管理，高效精准生产及运维。

With Paperless production records, traceable and transparent production process, closed management of data, so make efficient and precise production and maintenance.

降低生产成本
Reduce manufacturing cost

通过提升生产、管理和工作效率，使基础设施数量减少，人工数量减少，从而降低生产成本。

By improving production, management and efficiency, the number of infrastructure and labor are reduced, so reduce the production costs.

获得长期收益
Long-term benefits

生产数据留存，可实现基于大数据的深入分析，持续改善运营，同时系统可扩展、复制应用。

The retention of production data can realize in-depth analysis based on big data and continuously improve production and operation, and the system can be expanded and replicated.

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