

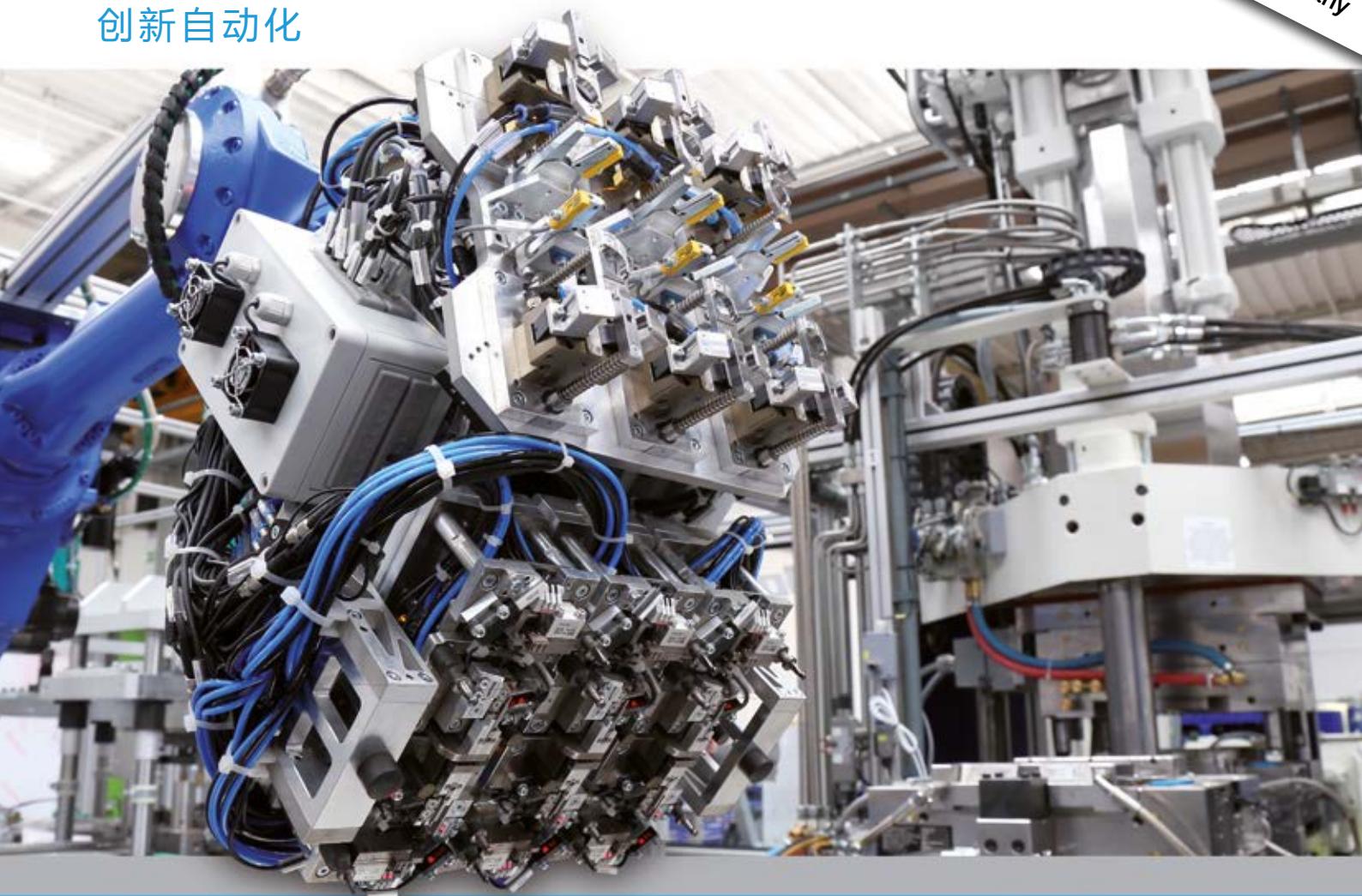


innovative automation

创新自动化



Engineering
Made in Germany



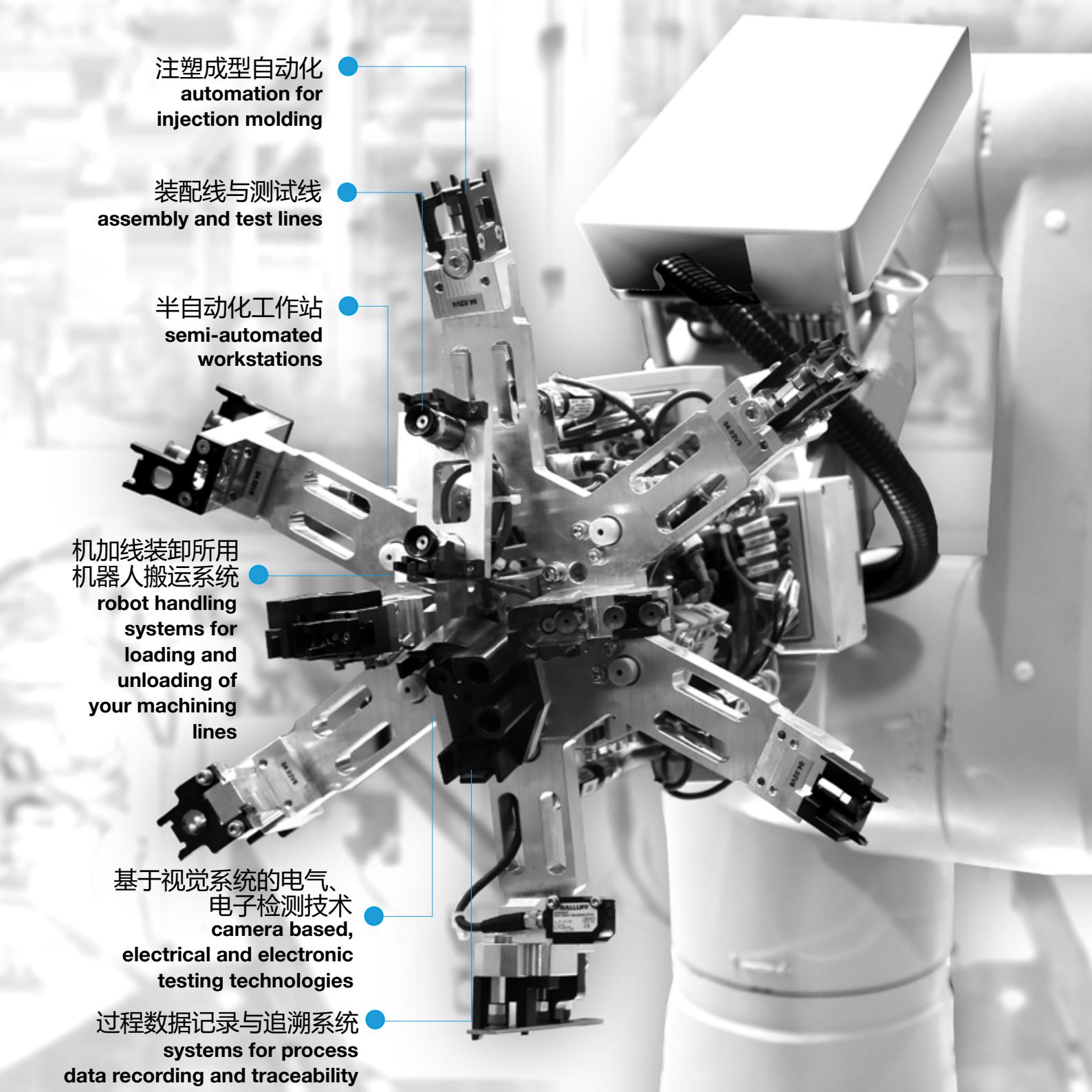
Your partner for innovative
automation solutions

您的创新自动化解决方案合作伙伴

www.m-a-i.cn

**Only the best
ideas for your
success!**

**专注于为您
的成功提供
最佳方案！**



注塑成型自动化
automation for
injection molding

装配线与测试线
assembly and test lines

半自动化工作站
semi-automated
workstations

机加线装卸所用
机器人搬运系统

robot handling
systems for
loading and
unloading of
your machining
lines

基于视觉系统的电气、
电子检测技术
camera based,
electrical and electronic
testing technologies

过程数据记录与追溯系统
systems for process
data recording and traceability



LOCATIONS

公司位置

M.A.i USA Inc.
Service and Sales
Atlanta/USA

美国亚特兰大的销售
和售后服务公司





ma

Headquarter
Kronach/Germany

总部位于德国的克罗纳森



MAi Automation
Technology Co. Ltd.
Nanjing / P.R. China
艾玛意自动化技术
(南京)有限公司

MAi Automation
Technology Co. Ltd.
Ningbo / P.R. China
宁波迅迈自动化技术
有限公司

FOUNDATION

成立



Autumn 1991 foundation of Jürgen Hoffmann Automation Technology by Jürgen Hoffmann.

Foundation of Hoffmann Automation GmbH in Kronach / Neuses October 1994, with it's production area of approximately 300 m2.

1991年秋，于尔根·霍夫曼（Jürgen Hoffmann）创立了“Jürgen Hoffmann Automation Technology”公司

1994年10月，在克罗纳赫/诺伊塞斯成立了“Hoffmann Automation GmbH”公司，生产区面积达到300 m²。

1991

1998

1999

2005

2011

HISTORY

发展历程

During the last two decades M.A.i has been grown to a well-known company in the automation division.

We develop and produce high-complex automations due to different requirements of our customers.

过去二十年间，M.A.i 已经逐步发展壮大，成为了自动化领域知名的公司。

我们一直致力于开发、生产高度复杂的自动化设备，以满足客户不同的要求。



FOUNDATION OF M.A.i GmbH & Co. KG

成立 “M.A.i GmbH & Co. KG” 公司

On 04 Oct. 1999 CEOs:

- Jürgen Hoffmann
- Rainer Knaak
- Arthur Schwab

1999年10月4日时任首席执行官：

- 于尔根·霍夫曼
- 雷纳·纳克
- 亚瑟·施瓦布

NEW COMPANY BUILDING OF M.A.i M.A.i新建公司大楼

120 Employees

120名员工

New company building of M.A.i since September 2011

- 30 000 m² estates
- 18 000 m² hall area
- Current production area 6500 m²
- Tripling of production area

2011年9月，M.A.i新公司大楼落成

- 占地30,000 m²
- 生产车间18,000 m²
- 现有生产区6,500 m²
- 生产区扩增了3倍
- 全新企业形象

Movement of the Engineering Office Schwab into Hoffmann Automation GmbH & Co. KG.

“Engineering Office Schwab”工程设计事务所及其5名员工迁至“Hoffmann Automation GmbH & Co. KG”公司大楼。

FOUNDATION OF ENGINEERING OFFICE SCHWAB

成立“Engineering Office Schwab”工程设计事务所



80 Employees
80名员工

- Extension of the production area up to 2000 m²
- New assembly area with an in-door crane.

- 生产区面积扩增至2000m²
- 全新组装区，设有室内起重设备

EXTENSION OF THE ASSEMBLY HALL IN KÜPS

增扩位于古比斯的组装车间



EXPANSION OF GLOBAL SERVICE

全面扩充服务部门

210 Employees
210名员工

- Expansion of service department for 10 employees and expansion of programming department for 30 employees
- Current production area 8000 m²

- 服务部门扩充至10人，编程部门扩充至30人
- 现有生产区达8000 m²

2014

2015

2016

2017

2018

170 Employees
170名员工

Foundation of MAi Automation
Technology Co. Ltd in Ningbo

成立宁波迅迈自动化技术有限公司

250 Employees
250名员工

Building and movement of our new M.A.i training center

- Brose Supplier Award 2016
- Lucas Cranach Unternehmerpreis 2016 - Categorie „Innovation“

建设并迁至M.A.i新培训中心

- “博泽2016年优秀供应商奖”
- 创新类“克罗纳赫2016创业精神奖”

280 Employees
280名员工

Foundation of MAi Automation
Technology Co. Ltd. Nanjing / P.R. China

成立艾玛意自动化技术（南京）有限公司

FOUNDATION OF M.A.i Ningbo / CHINA

成立 M.A.i 中国
宁波分公司

FOUNDATION OF MAi USA Inc.

成立美国公司
M.A.i USA Inc.

270 Employees
270名员工

- Foundation M.A.i USA Inc.
- Completion of the technical laboratory.

- 成立美国公司
M.A.i USA Inc.
- 建成图像处理与控制工
程技术实验室

FURTHER COMPANY EXPANSION

公司进一步扩张

FOUNDATION OF MAi Nanjing / CHINA

成立 M.A.i 中国南京 分公司

Process Control System

过程控制系统

High efficiency and data security

高效、数据安全

The M.A.i process control system has been developed using state-of-the-art technology.

M.A.i应用最先进的技术开发了过程控制系统。

The result is a system that meets even the highest standards of reliability and performance.

我们所提供的系统能够达到高标准的稳定性与功效

We know how valuable the data from your production are! The processing of several hundred measured values per second is just as self-evident as the operation on a high Availability Cluster.

我们知道您的生产数据有多重要！

每秒处理几百个测得数值，高可用性
集群的工作效率不证自明。

Keep an eye on everything

The M.A.i process control system allows you to monitor your process live by creating quality control charts for individual process characteristics.

These can be live at any time directly on the machine or also from the office.

随时随地掌控一切

M.A.i过程控制系统能够针对每个过程特性创建质量控制图表，便于您实时监控每个过程。无论是在车间还是在办公室，都能实现实时监控。

- Cost-effective solution

成本效益解决方案

- Fast integration into your infrastructure

与您的基础架构快速整合

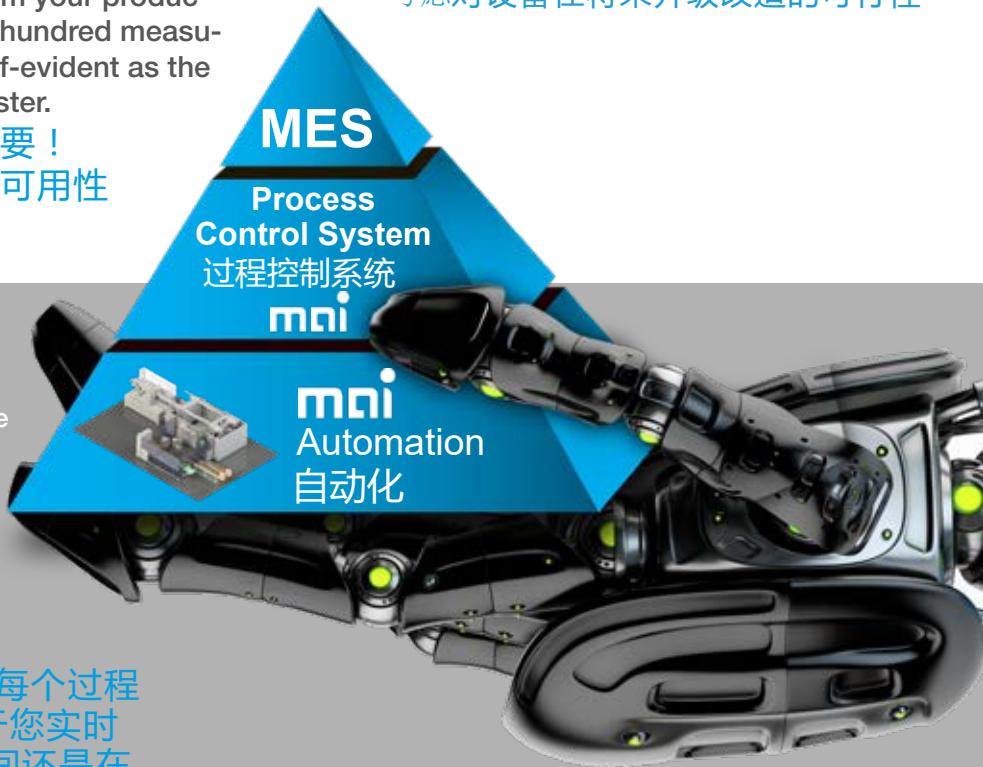
- Integrated solution for

Tracking & Tracing

跟踪与追溯集成解决方案

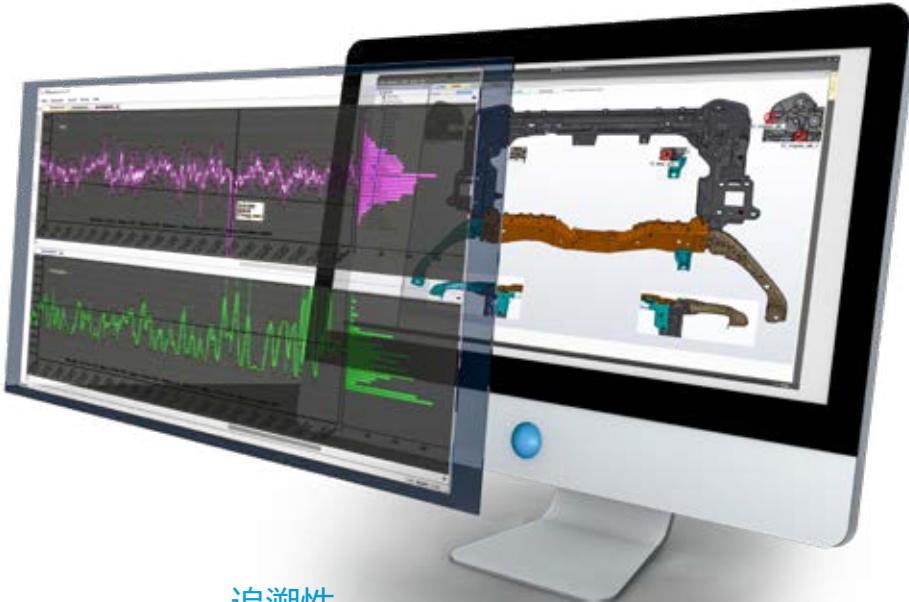
- Further extensions possible according to future growth

考虑对设备在将来升级改造的可行性



View on mobile device -
Live view available at any
time on smartphones,
tablets, etc.

可在移动设备上随时查
看——通过智能手机、
平板电脑等实时查看



Traceability

The M.A.i process control system offers the possibility to record all data during production and to assign it to your product by means of a unique part number and / or ticket number. You have the possibility to create parts life sequences, visualize defects of products and, of course, a variety of ways to export the data, e.g. as csv, xml or directly to an MES.

追溯性

M.A.i 过程控制系统能够按照所分配的唯一零件编号与/或工单号记录生产期间的所有数据。您能够创建零件生命周期序列、实现产品缺陷可视化，并且能够以.csv、.xml等格式导出或直接导出至MES。





M.A.i 为您完成装配线的规划和生产,例如:

From consulting and design to manufacturing and assembly as well as finally set-up of your individual machine.

您最高质量的生产–我们为您的需求创建自动化生产线 : 从咨询和设计到制造和装配 , 以及最终调试机器。

We find and realize the optimal solution. So that you can establish low-cost but qualitative high-class assembly processes at your plant.

我们找到并实现最佳解决方案。因此 , 您可以在工厂建立低成本但一流的装配工艺。我们为您开发了装配线中所需的一切工艺。

We develop for you all necessary processes in your assembly line. M.A.i assembly solutions assure innovation and customs-fit coordination exactly to your needs

M.A.i 装配解决方案用创新和量身打造相结合的理念来完全满足您的需要



- Feeding (bulk material, vibration feeder, tape and reel, load carriers, tray stacks and separation systems)
- 进料 (散装材料、振动给料机、卷带和卷轴、装载滑台、托盘堆栈和分离系统)
- Positioning, conveyance (workholding fixtures, collets, transfer systems, pick and place systems...)
- 定位、运输 (工件夹具、夹头、传输系统、抓取放置机构)
- Joining (clipping, bonding, welding with laser, ultrasonic-welding, vibration welding, hot plate welding)
- 连接 (裁切、粘接、激光焊接、超声波焊接、振动焊接、热板焊接、热融)
- Machining (die cutting, milling, separation, cutting)
- 机加工 (模切、铣削、分离、切割)
- Assembly (joining, welding, screwing)
- 装配 (连接、焊接、拧紧)
- Testing (all types of mechanical, electrical and camera tests)
- 测试 (所有类型的机械、电气和照相机测试)
- Marking (printer label, ink jet, pin printer, laser-marking, stamping, DMC-laser, DMC-countercheck)
- 标记 (打印机标签、喷墨打印机、针式打印机、激光打标、冲压、DMC激光、DMC -复读)





M.A.i 为您完成机器人与注塑机的结合自动化：





Great ideas
need
great **Solutions**

完美方案展现出
绝妙的构想

- Planning and consulting of the complete production technology for their product - Production, assembly, integrated processing, robotics, checking, packaging
- 规划和咨询其产品的完整生产技术（生产、装配、集成处理、机器人、检查、包装）
- Construction of assembly lines (carrier-circling system, round cycle – assembly machines, linear conveyor, transfer system, interlinked manual workstations...)
- 建设装配线（载体循环系统、循环组装机、直线输送机、传输系统、互连的手动工作台）
- Individual working places (stand alone, interlinked, onepiece flow...)
- 独立工作场所（独立式、互连式、一体式流动）
- Process implementation (assembly process, integrated tests, marking, traceability, packaging, ok parts and not ok parts handling)
- 工艺执行（装配工艺、集成测试、标记、可追溯性、打包、合格件和不良件处理）
- Feasibility studies and conception
- 可行性研究和概念
- Assembly of components and industry products
- 组件和工业产品装配



Your experts are specialists in injection moulding or extrusion. We have the necessary knowledge in the area of plastic material and it's processing as well as the further refinement stages.

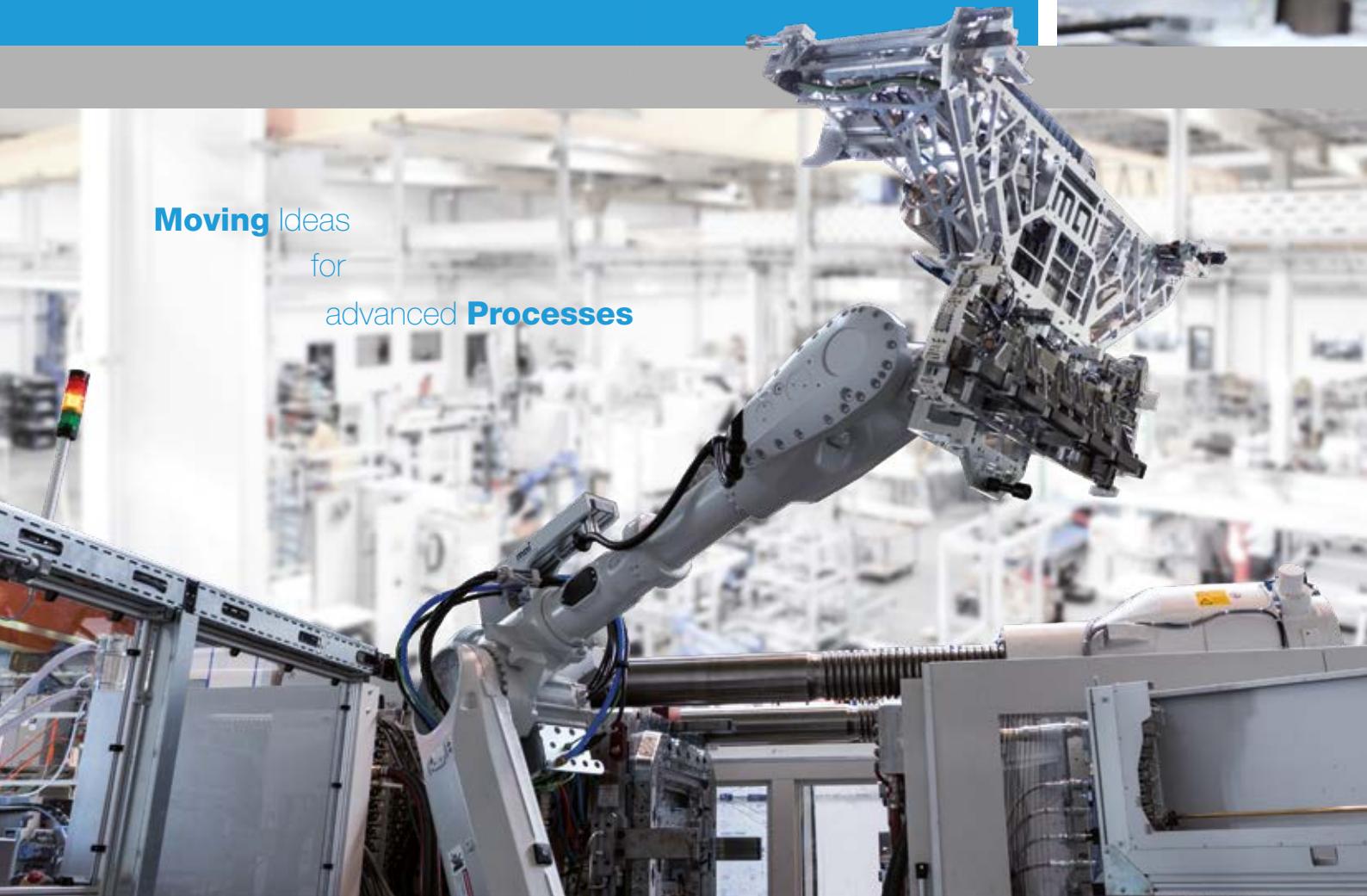
我们为您提供的专家都专精于注塑或挤制工艺。我们具备塑料加工与精制领域的专业知识。我们会根据您特殊的应用，为您量身定制自动化解决方案与系统，以确保提高您的效益。

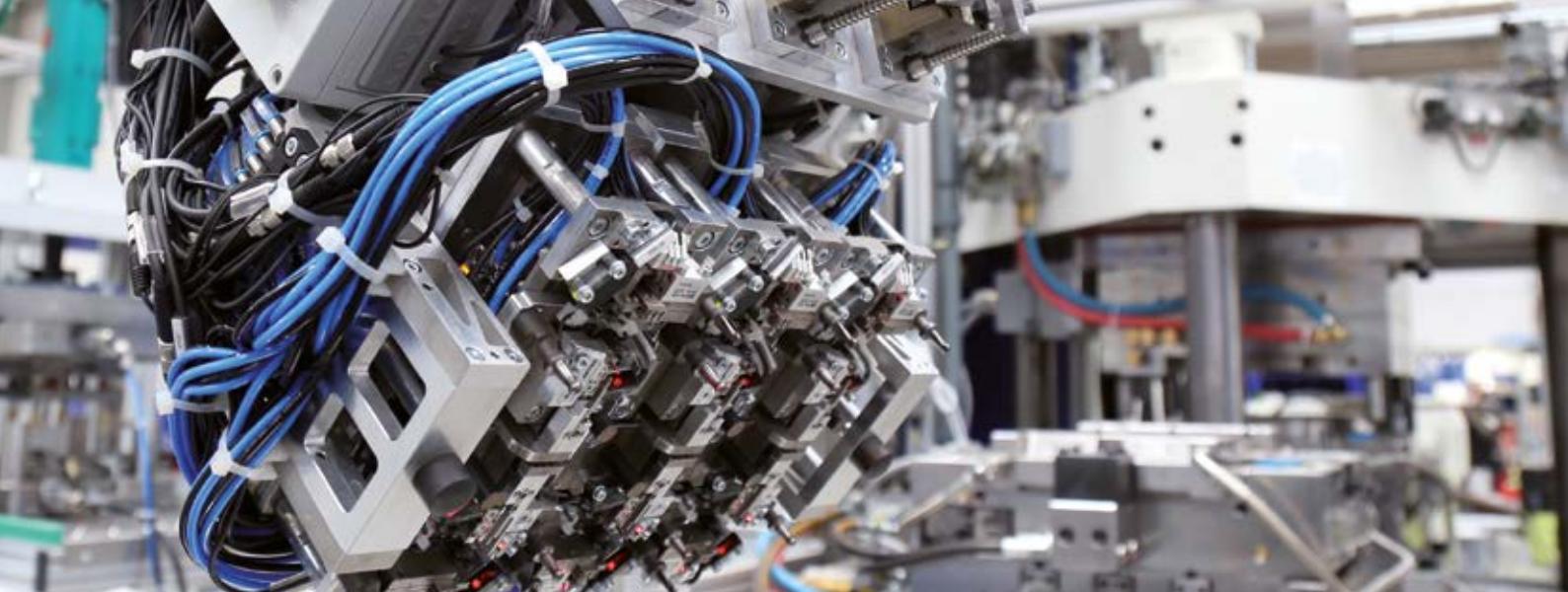
You benefit from our automation solutions and systems, which are exactly tailored to your special applications. Your individual M.A.i system ensures you the optimal way getting a finished product.

您可以从我们的自动化解决方案和系统中受益，这些解决方案和系统完全适合您的特定应用。



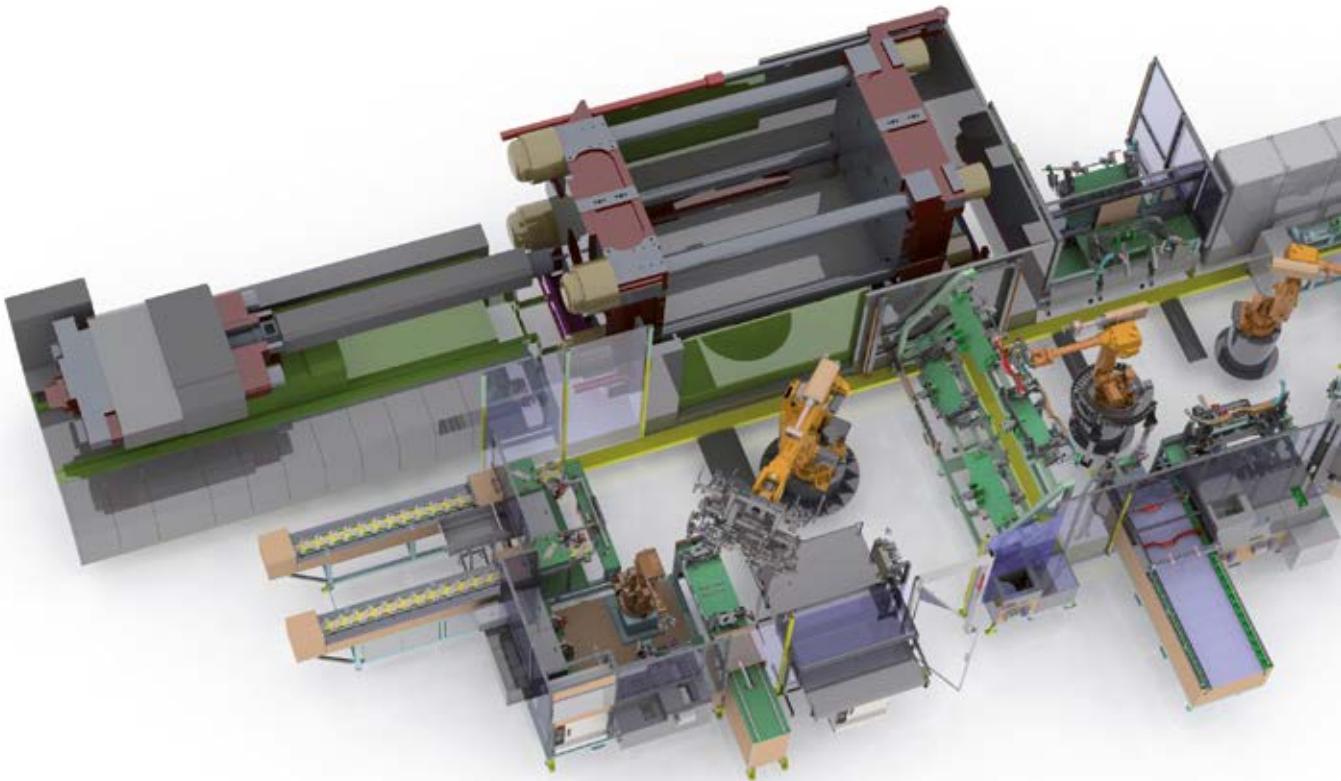
Moving Ideas
for
advanced Processes



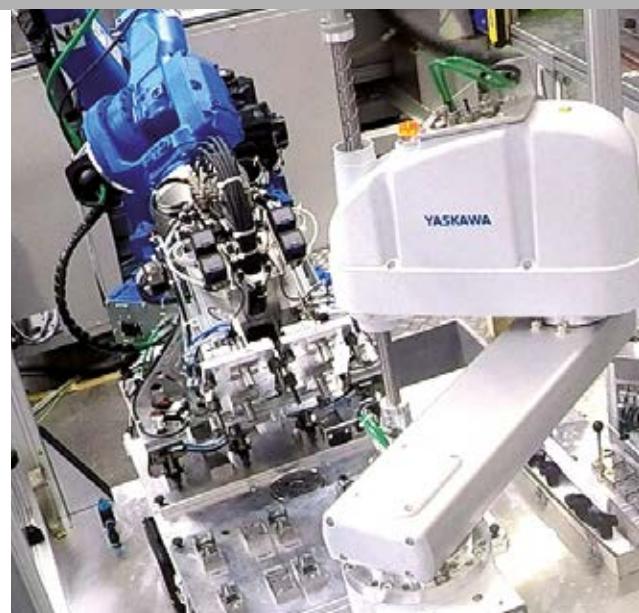


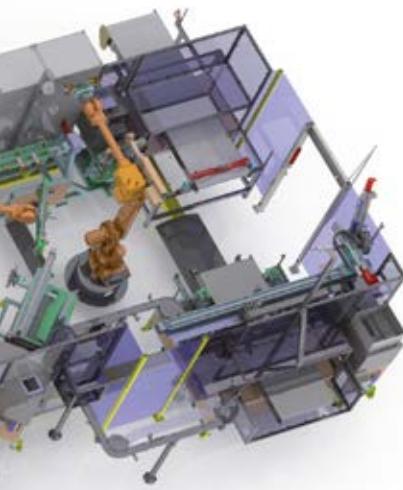
- Extraction of plastic parts with 3-axis handling system
(Single extraction, integrated assembling, controls, depo sitions, packaging...)
- 采用三轴抓取机构取出塑料件（单独取出、集成装配、控制、存放、包装）
- Lateral extraction handling (extraction of manufactures parts, insertion of insertion parts...)
- 横向取出处理（取出制造件、插入嵌件）
- 6-axis robot system (extraction, insertion, positioning, assembly, reworking, controls, marking, packaging...)
- 六轴机器人系统（取出、插入、定位、装配、返工、质量控制、打标、包装）
- Handling of insert parts inclusive automatic supply (vibra tion feeder, linear conveyor, flex-feeder, tape and reel...)
- 嵌件的自动送料处理（振动给料机、直线输送机、柔性给料机、卷带和卷轴）
- Extraction / extraction gripper (possibly with centering on the tool)
- 取出/取料夹（可带有中心定位功能）



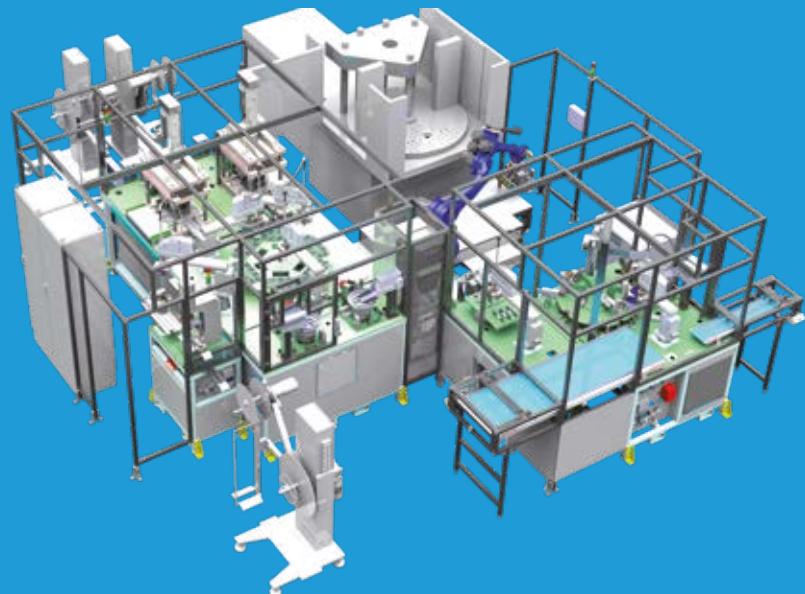


注塑产品的自动化产线





- Planning and consulting of the complete production technology for their product (Production, assembly, integrated processing, robotics, checking, packaging)
- 规划和咨询其产品的完整生产技术（生产、装配、集成处理、机器人、检查、包装）
- Construction of assembly lines (carrier-circling system, round cycle – assembly machines, linear conveyor, transfer system, interlinked manual workstations...)
- 构建装配线（载体循环系统、循环组装机、直线输送机传输系 互连的手动工作台）
- Individual working places (stand alone, interlinked, onepiece flow...)
- 独立工作场所（独立式、互连式、一体式流动）
- Process implementation (assembly process, integrated tests, marking, traceability, packaging, ok parts and not ok parts handling)
- 工艺执行（装配工艺、集成测试、标记、可追溯性、包、合格件和不良件处理）
- Feasibility studies and conception
- 可行性研究和概念
- Assembly of components and industry products
- 组件和工业产品装配



Your advantage:

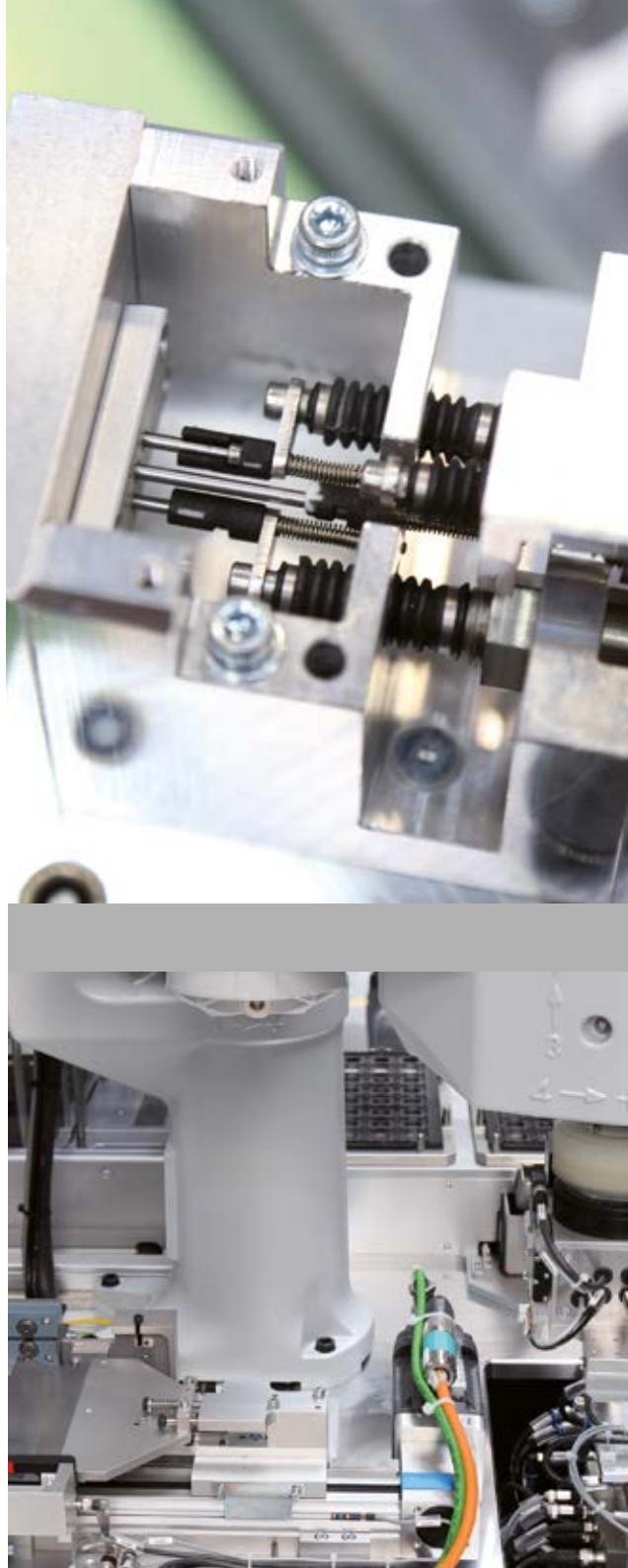
您的优势：

You use our experience pool for high efficiency and best quality in your production.

利用我们的专家团队确保高效和优质的生产。

We find and realize for you individual perfect solutions to automate your processes or special applications. You maximize at once your part quality and cost-efficiency using accurately M.A.i solutions.

我们为您找到并实现最好的自动化解决方案和特殊应用。通过 M.A.i 解决方案让您的产品质量和成本效益得到最佳化。





只要您有想法，我们负责为您实现



Special Applications for

- automated assembly and test lines
- automated machines due to injection moulding
- automation of special applications
- semi-automated manual workplaces
- robot handling systems for insertion and unloading of your machining lines
- camera based, electrical and electronic testing technologies
- systems for process data recording and traceability

特殊应用的自动化领域:

- 注塑产品的自动化产线
- 装配及测试的自动化产线
- 半自动的工作台
- 机械金属加工设备的机器人自动上料和下料
- 视觉检测，电子电气测试技术
- 数据储存和追溯功能

base frame for electric seats

电动座椅调节



ashtray cover with IML-Decoration

烟灰缸盖



steering wheel covers

方向盘套



rail glider

轨道滑块



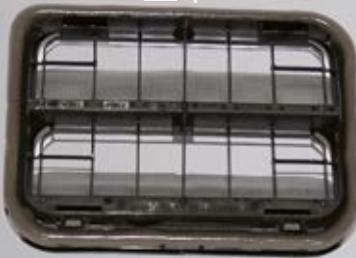
console carriers for front ends and spoiler

仪表板骨架



flaps

垫带



front end modules

前端模块



side parts of car seats

汽车座椅侧部



Automotive
Interior / Exterior

汽车内饰部件/
外观部件的自动化领域



凭借我们20多年来作为汽车行业供应商的经验，我们拥有专项技术开发创新，并且努力实践专业技能。我们为总成组，如发动机舱、电工技术、各种内饰部件/外观部件区域生产了几百种自动化解决方案。



actuators for gear shifts
齿轮执行机构



plastic oil pans



塑料油底壳

actuator modules



oil cooler housings



油冷却器

speed sensor cables
速度传感器电缆



shift rod actuators

换挡杆执行机构



grommets



垫环

wiping water tanks

雨刮器水箱



air mass meter

空气分配器



clutch pipes

离合器油管

shift-forks

换挡叉



引擎区域的产品实例，通过注塑自动化以及
M.A.i 装配生产线和测试线实现

main fuse boxes

主保险丝盒



heating pipes

暖气管



plug housings

连接器外壳



power rails

电动导轨



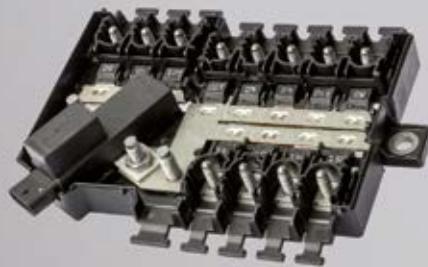
power modules

动力分配模块



fuse boxes

保险丝盒



power distributors

供电分路盒



actuator modules

执行机构模块



Automotive Electro / Electronic System

汽车电气部件/电子系统的自动化领域



brake light switches
刹车灯插座



electrical module for Hybrid-Vehicles
混合动力的控制单元



battery carriers
蓄电池托架

cogwheels for
mechatronic modules

机电模块齿轮



cover of control devices
控制装置盖



circuit board connectors
线路板连接器



LED headlights
LED大灯



我们对装配要求和必要的测试以及电气和电子总成组控制的广泛知识，保证了生产成品的极高工艺稳定性和质量保障。

电气元件和电子系统区域的产品实例，通过注塑自动化以及M.A.i装配生产线和测试线实现

water filters

滤水器



medical cups and bins

医用杯和瓶



toothbrushes

牙刷



optic components

光学部件



injection system
for needles

针头注射系统



tubes with connectors

带连接器的管筒



Automation

Medicine / Cosmetics / White Goods

医药/化妆品/家电的自动化领域

diagnostic plates

诊断板



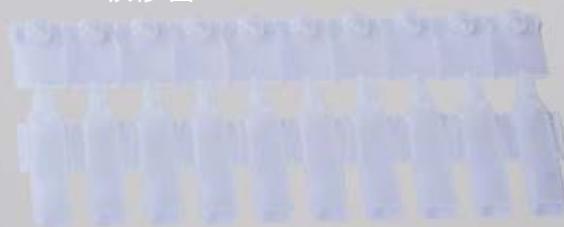
medical containers

医用容器



pipetts

吸移管



dental medicine devices

牙科工具



tub containers

管状容器



spray arms of
dishwashers

洗碗机喷洗臂



plastic injection needles

塑料注射针头



M.A.i 针对医疗技术/制药行业，在高质量洁净室系统解决方案有着丰富经验。

鉴于洁净室技术的最高标准，我们提供独立需求的一站式解决方案。针对洁净室和最高的清洁要求设定了执行的基准、功能和质量、审美和灵活性。

fence elements

栅栏部件



storage boxes

储物箱



food containers

食品盒



带塑料盖的滚珠轴承

ball-bearing with
plastic covers



castors

脚轮



power jumpers

连接端子



INDUSTRIAL APPLICATIONS

工业应用的自动化领域



telecommunication trims

面板



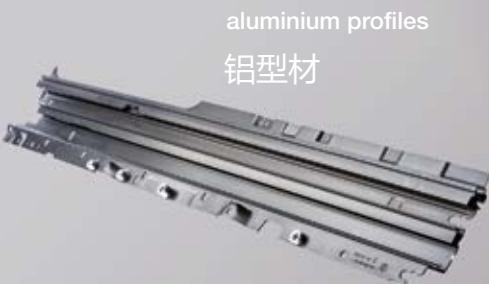
plastic taps

塑料水龙头



bearing / freewheel
systems

轴承部件



aluminium profiles

铝型材



battery covers

蓄电池盖



measuring tubes

量筒



motor switch covers

电机开关盖

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