

香港雅琪集团优质吹塑机械

# akei®

AKEI HOLDINGS COMPANY LIMITED



大型储胶式系列 Industrial Series

[www.akei.com.hk](http://www.akei.com.hk)



## 产品介绍 Machine Features

雅琪大型容器系列吹塑机可生产50L至1200L的工业包装容器，设备储胶量高达41公斤。该系列吹塑机具有性能稳定、节能降耗等优点。机头设计精密，在转换原料及颜色时快捷方便。整机制作精良，配置高端，生产时成品率高，设备故障率低，能为用户带来可观经济效益。

The Industrial Series was created due to the growing demand for larger plastic containers and products of complex design. To date, Akei has developed models in this Series capable of handling containers of up to 1200L in volume, 41kg in weight or almost 2 square meters in size. Keeping with tradition, the characteristics featured on each of these models are parallel to other Akei machine Series. Reliability and performance are enhanced by high-quality, imported components. Available only in single-station configuration and accumulator design extrusion head.



### AK-90HA

本型号标配90mm挤出螺杆，最大成品可达120L工业容器，瓶壁可带液位线或多层共挤设计，适用于化工包装、人体模体等异形产品生产。

Equipped with a 90mm extruder screw, this model is suitable for producing up to 120L barrels used for storing different kinds of chemical, industrial or agro-chemical products. With a mold platen of just less than 1 square meter, it is also recommended for the production of bus or stadium seats, medium size collection bins and many other kinds of products.

### AK-125HA

本型号标配125mm挤出螺杆，成品可达200L工业容器的大型吹塑机，采用加高模板设计，制品最高可达2.5米。适用于大型化工、儿童滑梯、游乐玩具、台面板等异形产品等生产。

Featuring a mold platen of 1.5 square meters and able to extrude up to 400kg/hr (standard configuration), this model is ideal for the production of UN certified barrels ranging from 150L up to 250L in capacity. Alternatively, other products such as road barriers, countertops, playground parts and others similar in size or volume can be produced with this model.

### AK-120IIHA

本型号标配两条120mm挤出螺杆，成品可达1200L工业容器的大型吹瓶机，可选多层共挤，适用于大型化工、IBC吨桶、中空桌面、中空塑胶托盘、大型异形产品等生产。

Presently, it is the biggest EBM machine manufactured by AKEI. This model was developed specifically to produce Intermediate Bulk Containers (IBC) of up to 1200L in volume. With the ability to plunge 41kg in a single shot, an impressive clamp force of 200 tons (160bar) and a mold platen area just under 2 square meters, this model is also able to produce heavy duty pallets for transporting and storing industrial goods at 4 tons dynamic load and 5 tons static load respectively.

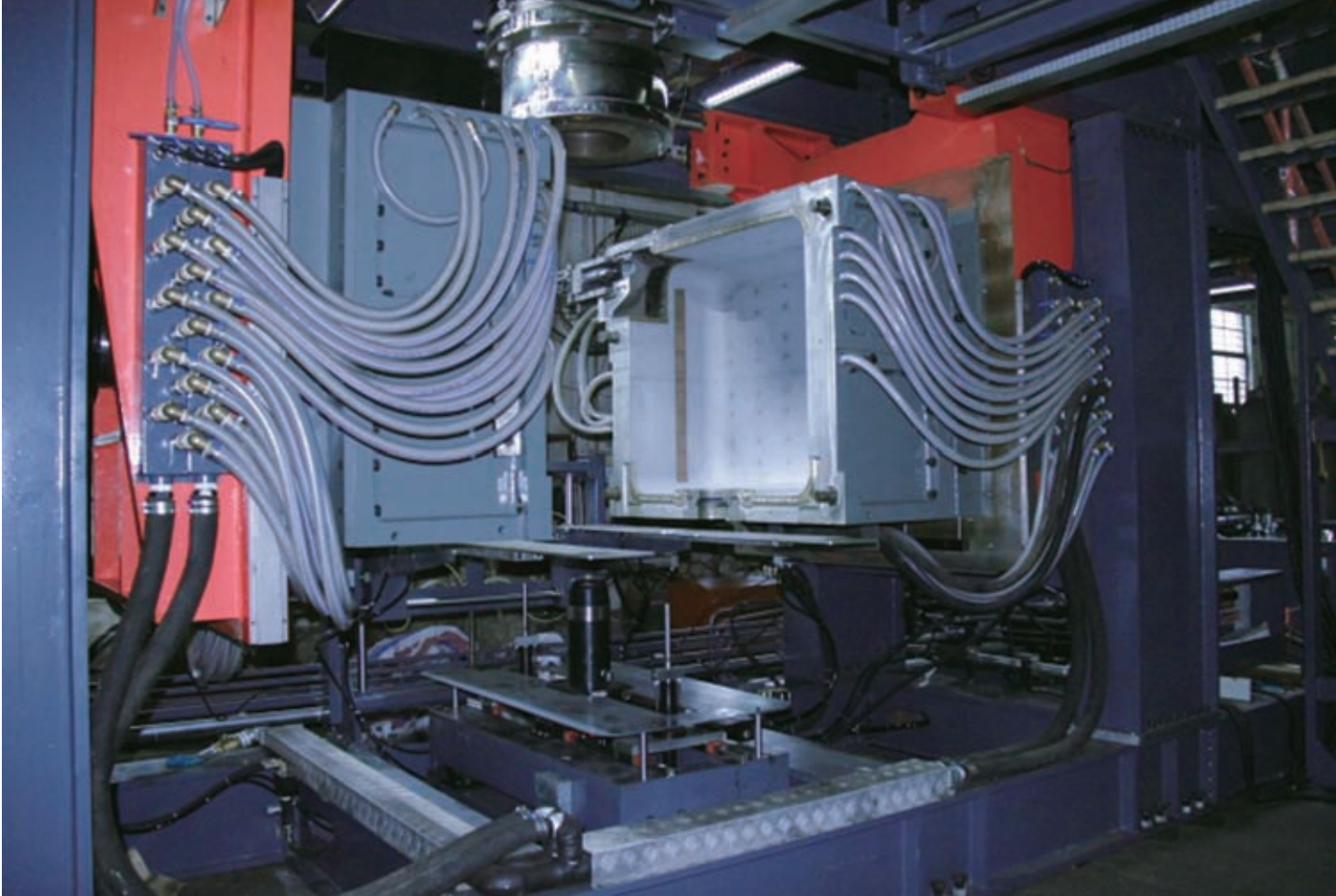






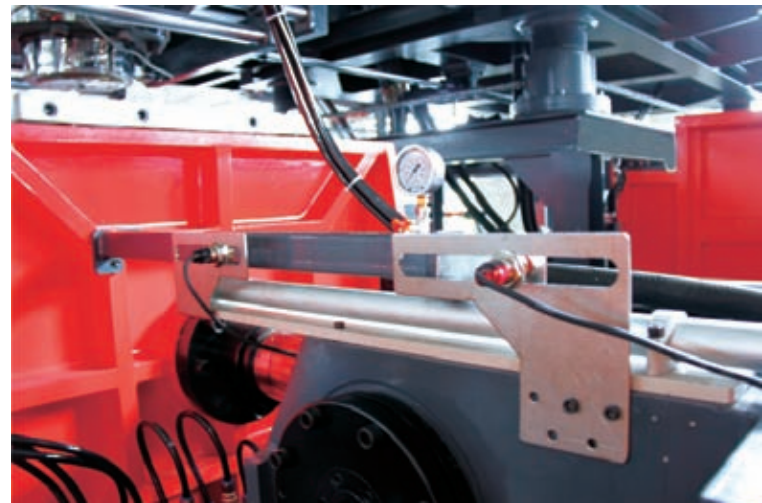
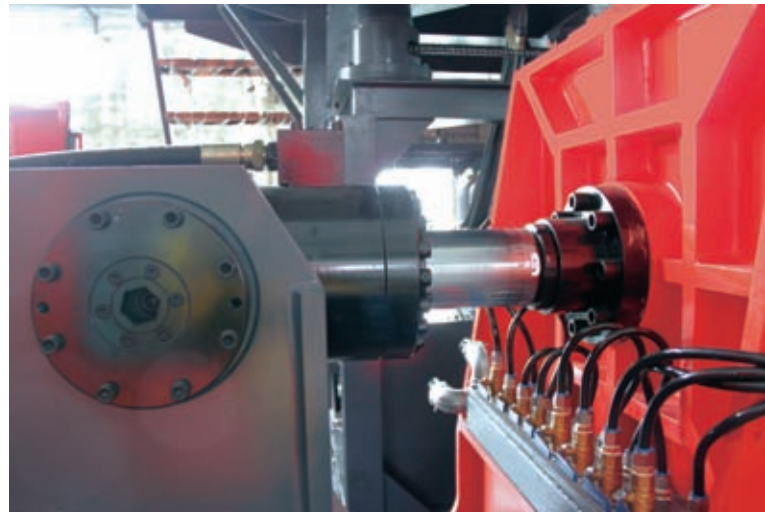
## 控制系统 Control System

- Eurotherm(欧陆)控制系统。  
Eurotherm® MACO COMPACT total control system.
- 12寸真彩显示触摸操作屏幕。  
12 inch Thin Film Transistors (TFT) touch screen.
- 闭环比例液压动作控制，配无接触式电子尺。  
All machine movements are step-less adjustable via total control system.
- 100点（或以上）的型胚控制。  
100+ point parison control cylinder with TRANS-TEK® LVDT and REXROTH® servo valve.
- 显示及修改电热温度值、保温值、高低温警报等。  
Integrated heating, heat standby control and temperature alarms.
- 可预设定时加热。  
Integrated pre-heat settings.
- 显示所有位置设定、时间设定、动作状态等。  
Display of adjustable settings, time settings, movements' status and more.
- 显示机械全自动生产周期所需时间。  
Display and breakdown of total production cycle time.
- 油温自动控制功能。  
Automatic control of hydraulic temperature.
- 显示所有警报信息的原因和时间。  
Alarm log with possible cause of error indicated.
- 显示所有输入输出状态。  
Display all I/O status.
- 级别密码设定。  
Multiple security levels accessible by password only.

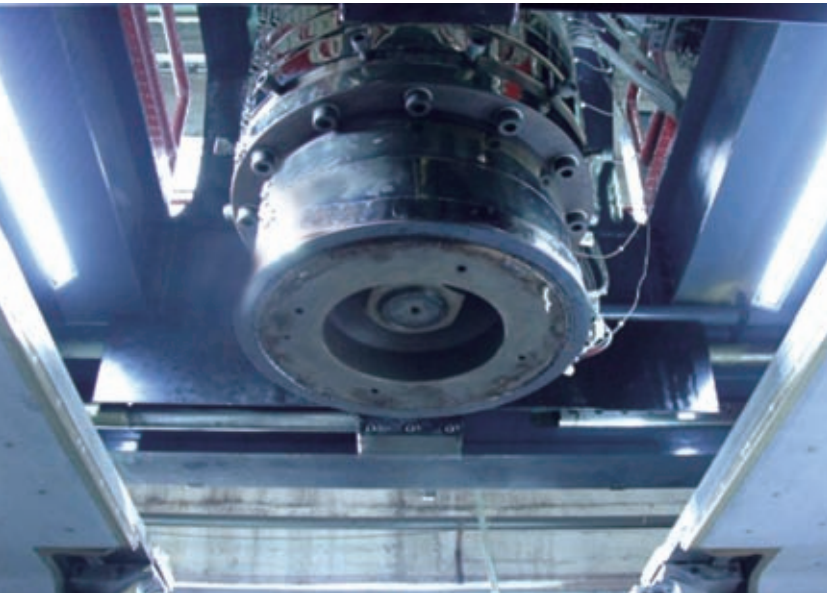


## 机架结构 Clamp & Carriage

- 锁模板使用德国Rexroth直线滑块/导轨装置侧向悬挂，经久耐用，稳定性好。  
Carriage travels on Rexroth® T-rail and slide bearings.
- 锁模配有同步齿条装置，确保开合模同步。  
Equipped with clamp synchronizing rack mechanism to ensure smooth runs on mold opening/closing sequences.
- 锁模板上配有接触式行程开关，确保锁模可靠。  
Mold opening and closing sequences are safeguarded by a contact switch in order to ensure accuracy of each motion.







## 挤出机头 Extrusion Head Unit

- 采用储料缸式机头，中心射料，先进先出设计。  
Accumulator-type head, single shot, central feed extrusion, optimal flow channel design. Plunge cylinder speed controlled via Vickers® proportional valves and Balluff® transducers
- 带LVDT和伺服油缸的100点壁厚控制系统。  
100+ point parison control cylinder with TRANS-TEK® LVDT which allows for accurate control of parisons' wall distribution (weight).
- 电热片排布紧密，胚料受热均匀  
Multiple heating zones evenly distributed throughout unit in order to efficiently maximize plasticizing capacity and avoid material deformation at this critical stage of the extrusion process.
- 机头材料采用38GrMoA1A、S136H等优质钢材，先进的工艺流程精密加工，保证长效使用。  
Accumulator head is made from bimetal 38CrMoA1A and stainless steel S136H. It is manufactured into shape in-house at high precision CNC center in order to ensure highest quality and performance of this part.
- 可选配单层、或多层共挤，液位线，适应产品对于不同功能以及环保的特殊要求。  
Optionally head(s) can be configured with "view stripe" function and multi layer co-extrusion.



## 挤出机 EXTRUDER UNIT

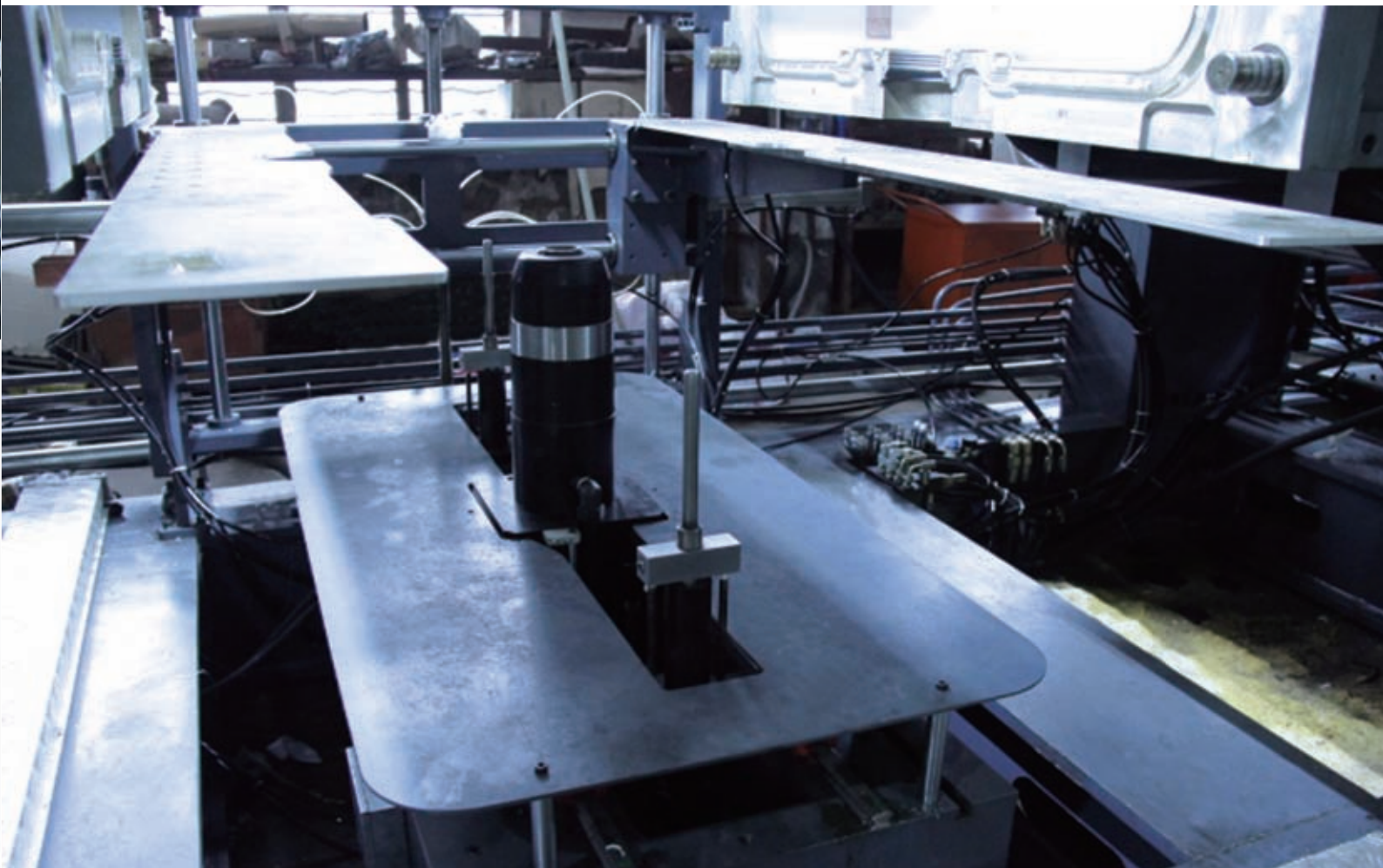
- 采用配德国SEW® 平行轴式齿轮减速马达，变频器驱动。  
Equipped with Fuji® inverter (VFD) and SEW-EURODRIVE® parallel shaft helical gear motor. These components ensure the most efficient configuration which results in longevity of equipment, accuracy during extrusion process and easy access during maintenance process.
- 机筒材料42GrMo，内壁采用HK1粉末合金浇注，特殊工艺加工；螺杆材料42GrMo，表面镀铬加硬，螺棱喷镍基合金。螺杆采用著名专业公司量身定做的设计方案，挤出量大，混炼均匀，耐磨性能卓越。  
The extruder barrel is made from 42CrMo steel alloy and its inner wall treated with powdered alloy casting. The extruder screw is also made from 42CrMo steel alloy and its surface is chrome plated while the ridges are treated with sprayed nickel alloy. The extruder screw design has been developed in order to maximize plasticizing volume and ensure uniform mix during melting process.
- 专业螺杆设计公司方案，挤出量：  
AK-90HA达220kg/h；AK-125HAII达400kg/h；AK-120IIHA达600kg/h。  
Extruders' output rates:: AK-90HA, 90mm, up to 220kg/hr; AK-125HAII, 125mm up to 400 kg/hr; AK-120IIHA, 2x 120mm, up to 600 kg/hr. All rates based on virgin HDPE.
- 配有螺杆顶出装置，方便螺杆拆卸清洁保养。  
Equipped with screw ejecting device for easy screw dissembling.
- 可选压力传感器或溢料防爆膜系统安全装置。  
Back pressure gauge located on extruder unit flange as an enhanced safety feature (optional).
- 多段分区独立加热，独立风扇冷却，中央控制系统的温控模块PID+PWM精确温控。  
Multiple heat zones and cooling fans allow independent heating and cooling. Precision control of heating with PID and PWM precision temperature control modules for centralized heating control.





## 吹风系统 Blowpin Station

- 吹风座动作采用Vickers® 方向阀控制，使用液压驱动。  
Blow-pin movements are actuated by Vickers® proportional hydraulic valves.
- 吹气杆可选配备快速排气功能。  
Water-cooled, double-wall design blow pins for rapid venting.
- 配无接触感应近接开关，保证定位精度。  
Equipped with photoelectric sensors to ensure continuous accuracy of up and down movements.
- 可选配旋转吹风杆，以加工内螺纹。  
Option for un-screwing blowpin available according to product' s requirements.
- 可选配备扩胶导杆（带水冷却），扩宽胶胚。  
Water-cooled parison spreader available according to product requirements.

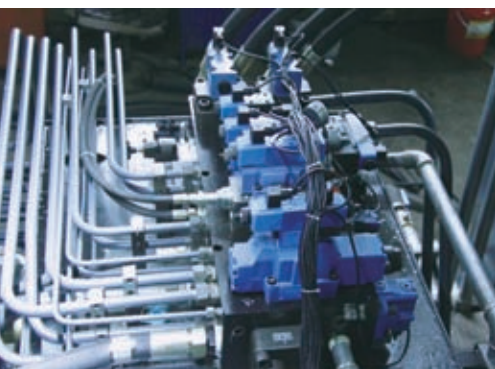






## 液压系统 Hydraulic Components

- 配备Vickers® 液压阀、液压泵及储能器。  
Vickers® proportional valves and double vane pump. Accumulator tanks by NACOL®.
- 配备KAMUI FS® 冷却器。  
KAMUI FS® water-cooled heat exchanger in order to maintain hydraulic oil at optimal working temperatures.
- 配有液压油液位探测装置。  
Hydraulic oil reservoir equipped with liquid level gauge.
- 配有独立的拉胶液压单元。  
Independent hydraulic power pack unit for 100+ point parison control cylinder (servo motor).
- 锁模动作使用比例方向阀控制，可调节运动速度及压力高低。  
Clamp movements are actuated with proportional valves.
- 液压驱动—可选配节能降耗的伺服油泵马达、德国内齿轮泵/或配异步电机驱动Vickers® 变量泵。  
Central Hydraulic System: standard (Vickers® variable pump actuated by AC motor) or energy saving (inner gear pumps actuated by servo motor Eckerle®/Voith®).
- 可选液压油预热及油温探测装置。  
Optional hydraulic oil pre-heat and oil temperature reader.

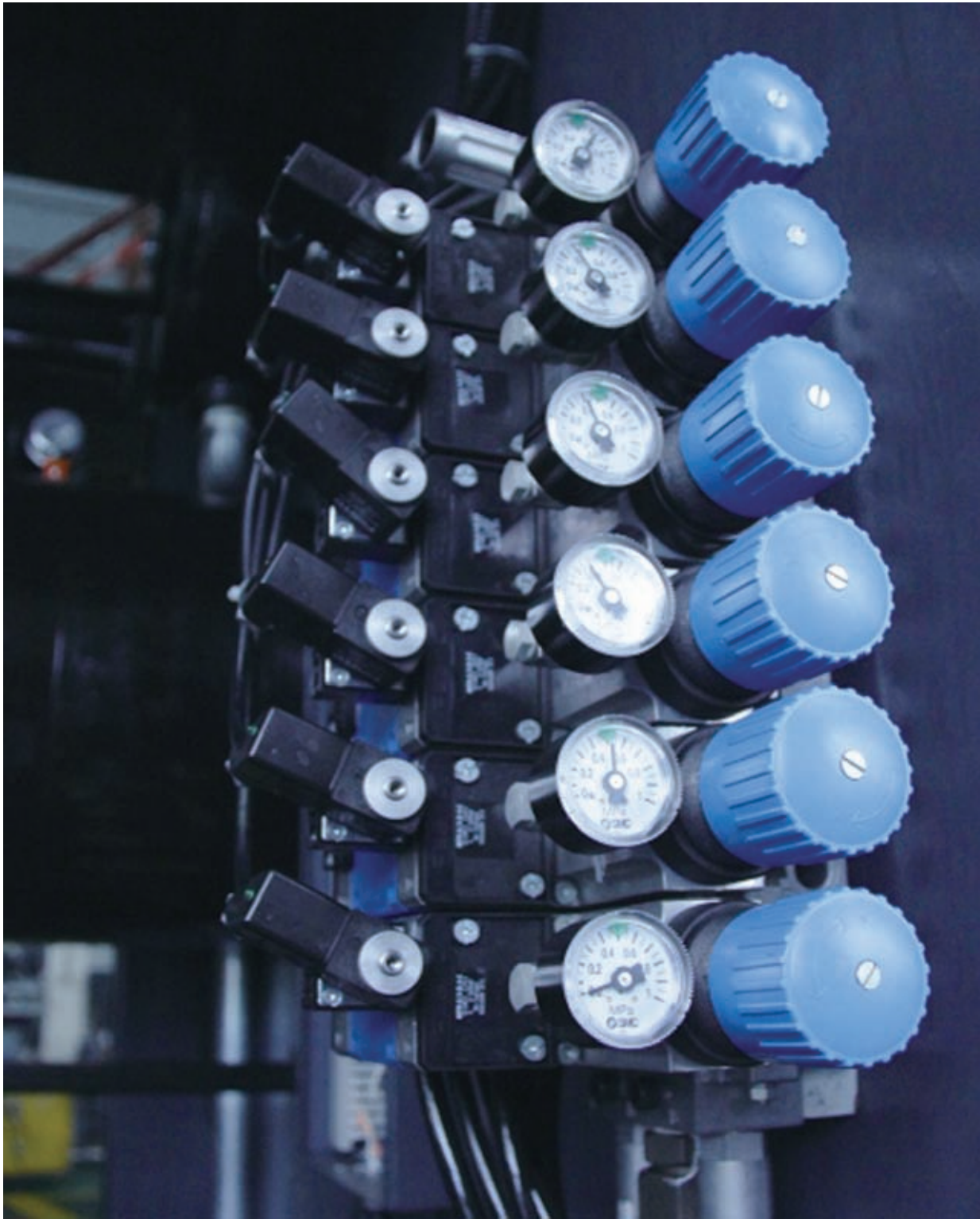




## 产品导出系统 Oriented Discharge

- 配机械手取瓶装置。  
Pneumatic robot arm to place final product on a small conveyor in front of machine.
- 使用电磁制动或油缸电机控制机械手进出，SMC® 气缸控制机械手开合。  
Pneumatic robot arms actuated by Festo® or SMC® cylinders and regulated by solenoid directional valves.





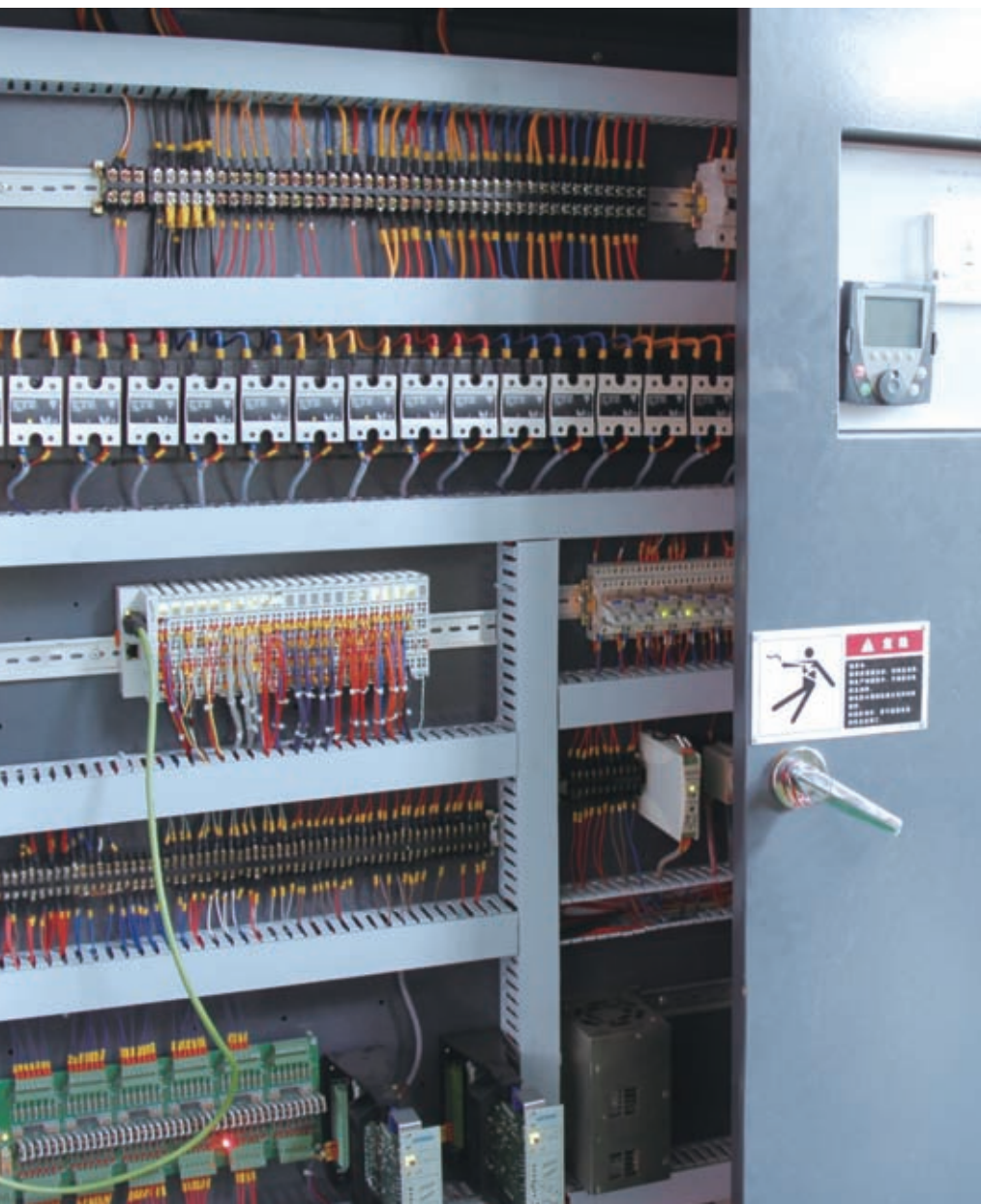
## 气动装置 Pneumatic Components

- 配备Festo® 气动控制阀。  
FESTO® pneumatic controls.
- 配备SMC® 空气洁净组合。  
SMC® quick exhaust valve.
- 配备SMC® 标准气缸。( AK-90HA配AIRTAC® 标准气缸、薄型气缸 )  
FESTO® or SMC® cylinders. (Feature not included on AK-90HA model).



## 电路配置 Electrical Components

- GE Fuji® 变频器。  
GE Fuji® VFD.
- Schneider® 交流接触器。  
Schneider® AC contactor.
- Schneider® 热过载保护继电器。  
Schneider® thermal overload protection relays.
- Allen-Bradley® 断路器。  
ABB® circuit breakers.
- Carlo Gavazzi 固态继电器及中间继电器。  
Carlo Gavazzi solid state relays and auxiliary relays.
- 标配Eurotherm (欧陆) 控制系统, 也可选配Beckhoff (倍福) 控制系统。  
Eurotherm® MACO COMPACT or BECKHOFF® integrated industrial PC unit.
- 明威DC电源。  
MingWei® DC power supply.
- 电箱配有排风扇, 散热良好。  
Electrical cabinet equipped with cooling fans to regulate temperature. Optionally air conditioner unit can be installed for improved cooling.







## 润滑系统 Lubrication

- 集中润滑系统，Beckhoff® 自动控制。  
Automatic lubrication regulated by Total Control System.

## 其他 Others

- 设备喷涂：机器采用波纹油漆，颜色符合环保和安全规范要求，防锈处理，重要部件采用电泳等先进工艺，耐旧和耐候性好。  
All coated parts are shot-blasted before paint application or anodizing. Texture paint is applied for machine framework and large parts. Whenever possible, mechanical parts are anodized for improved corrosion resistance.
- 设备照明：机器前架和后架液压站均配有环保固定式LED照明。  
LED light panels are distributed throughout the front and rear sections of the machine in order to maximize visibility for the operator during actual production and/or maintenance procedures.
- 可根据客户特殊要求选配：锣口机、测漏机、金检机、视觉检测、称重、理瓶机、贴标机、装袋（箱）机、打包机、码垛和缠绕机、输送系统等自动化设备。  
Spin trimmer, leak tester, orientation device, independent post cooling station, packing robots and any other ancillary equipment necessary for a turn-key operation are available upon request.



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**AKEI PLASTIC-MACHINE MFY.LTD.**

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**星航实业有限公司**

**MARS LINE INDUSTRIAL LTD.**

**中之杰有限公司**

**CENTRALEADER LIMITED**

**雅琪集团工业城**

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