

LKIMM



ELETTRICA SERIES

ALL-ELECTRIC HIGH PERFORMANCE
INJECTION MOLDING MACHINE

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LK INJECTION MOLDING MACHINE

ELETTRICA SERIES



All-Electric Injection Molding Machine

Application industry: medical consumables, electronic products, home appliances, thin-walled products and other high-end applications.



High efficient and precision

Combine high efficiency and high accuracy, suitable for various products in the industry



Less energy consumption

High efficiency, low loss, go green. Unlimited possibilities for green and cleaner production



Save space

Optimized construction, compact design



Expansibility

Open source platform provide freedom to user to implement secondary development



Safety and high repeatability

High sensitive low pressure protection function and with the highest safety integrity level device, mold and human always stay safe

HIGH EFFICIENCY ALL-ELECTRIC SERIES

Benchmarking with international performance standard and level of technology

LK Elettrica series all-electric injection molding machine integrated the advanced technology and R&D concepts, with flexibility through modularity to cope with different production requirement.

The series combined advantages of high repeatability, stability, quick response, energy-saving and user-friendly, especially suitable for the application in communication, optics, medical, packaging industry.



20% ↑

Compared with traditional hydraulic machine, energy saving up to

Efficient and precise

The operation of Elettrica series is driven by multi servo electric motors that achieve movement parallel and bring the outstanding performance.

Expansibility

LK Elettrica combined with ergonomic design concept, operation panel can be rotated at multiple angles, easy to use and for maintenance.

An open platform operation system is available management more smart integration, graphical free programming, more convenience adding automation.

Safety and high repeatability

With superior low-pressure protection algorithm, safety of the mold can be sensed instantly by real-time monitoring speed and torque changes on mold clamping servo motor. It can effectively protect the mold from damage by foreign object.

Save space

Create Maximum efficiency for each cubic meter.

Eco-friendly and energy saving

The most of benefits of the all-electric is to save energy compared with traditional hydraulic models; less wear and more than 95% energy utilization rate, ensure high repeatability of injection molding; No hydraulic oil, no seal aging and no oil pollution problems, suitable for clean production; Low noise, providing more comfortable environment at mass production scale.

CLAMPING UNIT

0.01mm

Clamping position control accuracy up to

Smooth and precise, linear support

High-precision platen guidance which ensures high parallelism, stable movement, and reduce energy consumption effectively;

Non-contact tie bars and linear guide rails greatly improve the position accuracy of mold opening and closing;

Adopted sophisticated FEA software to optimize the design, makes platen with high rigidity and low deformation.

Mold automatic protection function

The mold protection function can prevent the danger or failure caused by objects caught in the mold. High rigidity platen integrated with sensitive protection system to ensure the safety of the mold.

Parallel motions to reduce cycle time

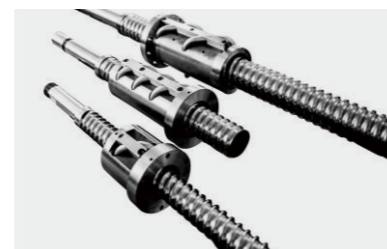
Each motions is driven by an independent servo motor, which can realize the synchronization of multi-axis movements of mold opening, eject and metering.

Dry cycle time can be less than 2 seconds that greatly reduces the time, thereby improving production efficiency. Servo electric ejection is standard and perform ejection parallel motions.



Powerful and strong ejection

Equipped with high-quality high-rigidity ball lead screw, which make sure machine parallelism movement optimally match the mold. The ejector part adopts high-load servo motor to drive ball lead screw which can perform parallelism movement with high sealing and low noise.



INJECTION UNIT

0.01mm

Injection position control accuracy up to

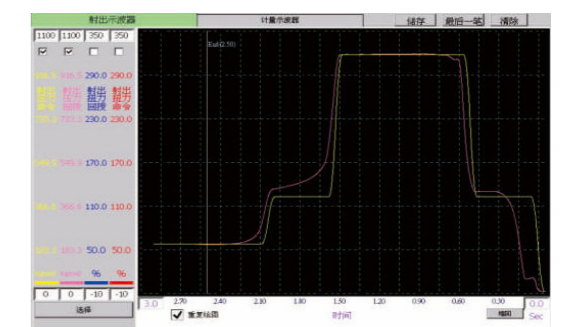
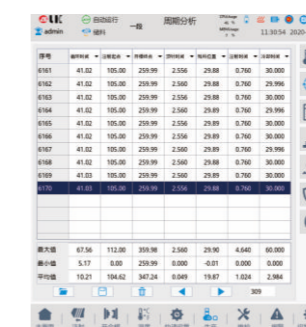
High-performance servo motors and drives

Combine with low-inertia injection moving parts design, high injection speed as well as speed acceleration. Excellent repeatability injection end position for high precision parts production requirement.



Control accuracy with high precision

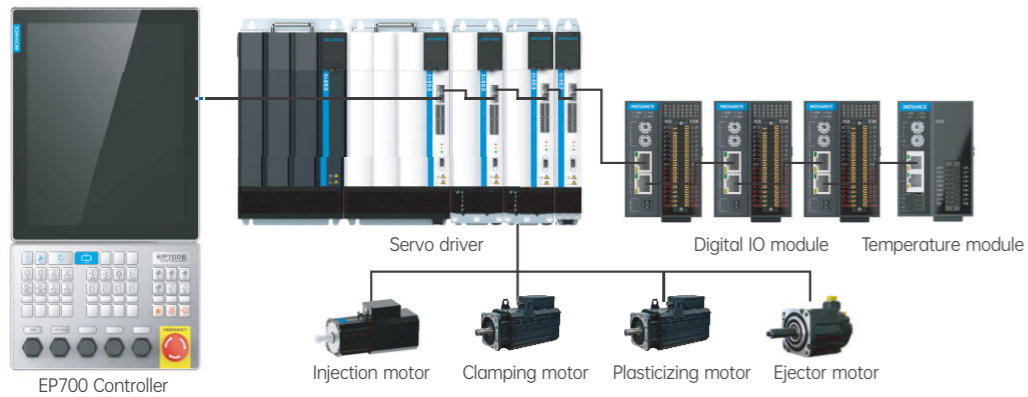
Guide rails support provides less friction and high response movement. To satisfy high precision production, machine driven by high performance servo motor, integrated with the design of low-inertia injection parts, speed response reaches up to 1G and meets accurate injection end position.



CONTROL UNIT

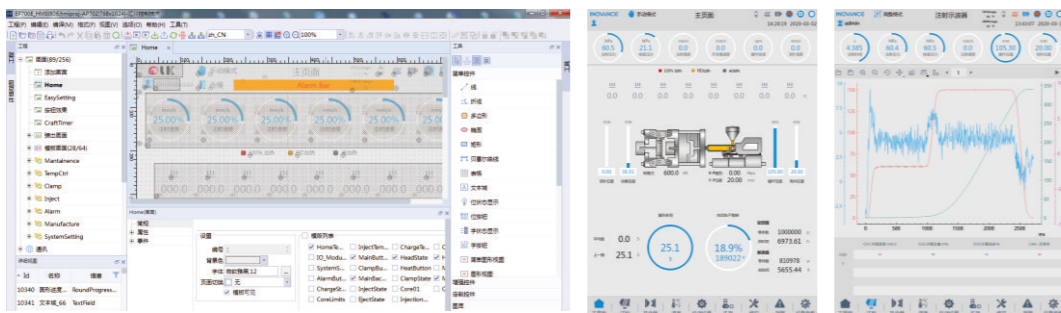
Precise control accuracy

Adopting Germany high-performance control system connected through EtherCAT bus with injection molding machine controller and servo-drive and servo motor, sharing real-time data, to achieve closed-loop control.



Simple and easy-to-use control system

- 15-inch high-performance all-in-one display and sequence processor
- Real-time sampling oscilloscope with high sampling rate, convenient for process debugging
- Support free programming, permit secondary development, ease for complex integration
- Machine configuration can be flexibly expanded to support the industrial Internet of Things (IoT)
- Support IEC61131 defined multiple programming languages and with offline simulation, graphical Programming of interface design.
- Support for multiple languages
- Free programming available, secondary open platform for complex processing



4.0

OPC-UA communication protocol

Systematically SPC data, easy to read

All processes data can be checked and display with statistically calculation result compare with reference settings, greatly facilitates process management.

Open system, supporting smart factory networking

The LK Elettrica all-electric machine complies with the OPC-UA communication protocol of Industry 4.0, and operation of all equipments can monitor anytime and anywhere through the networked system.

Realize smart factory, smart production, smart logistics, support Internet, EtherNET 100M network port, support Modbus-TCP protocol, reduce social cost of production and improve production efficiency.

Support for production management systems (ERP, MES) and provide shortcuts for remote digital management.



Ui Screen Functionality Display