直壓式 伺服節能注塑機

PT80 - PT350

LK DIRECT HYDRAULIC ENERGY SAVING AND HIGH PRECISION SERVO INJECTION MOLDING MACHINE

力勁集團 L.K. GROUP
EFFORT-II Series
DIRECT HYDRAULIC 伺服節能注塑機
Plastic Injection Molding Machine

Founded in 1979 in Hong Kong, L.K. Group has demonstrated its core strength in design, manufacture and sales of hot and cold chamber die casting machine, magnesium die casting machine, precision injection molding machine and CNC machining center. L.K. is now the world’s largest die casting machine manufacturer and one of the major injection molding machine makers in China. Its CNC machining center also provides the most comprehensive solution to user. In 2006, L.K. has become the listed Company of the Stock Exchange of Hong Kong Limited. With the continued effort throughout decades, L.K. has established a good international reputation.

As one of the leading injection molding machine manufacturer in China, L.K. has integrated the experience of Chinese and Overseas Injection molding plants and developed the EFFORT-II series injection molding machine. The machine consists of advanced injection, clamping and control function.

- Single cylinder injection
- Precise and easy nozzle contouring, precise plastizing process control
- Injection carriage support with linear guide rails
- Durable enhanced by high quality sealing components and technology
- Enhanced plastizing by optimized screw and barrel

- 8” Large size color LCD
- Injection process control
- Servo control system
- Large capacity of data storage and monitoring function

- Stable "Servo" fast mold clamping mechanism
- Low pressure mold protection device
- Moving platen guided with linear rail
- Large daylight and mold opening stroke
穩定的高性能射膠系統
Stable and high performance injection system

主要特點 Features

- 溶缸式射膠系統：射膠精度高
- 全自動控制射膠：射膠穩定性高
- 使用高性能射膠螺桿：射膠靈活性高
- 射膠精度控制高：射膠精度高

強勁耐用的鎖模單元
Powerful and durable clamping system

主要特點 Features

- 高精度鎖模系統：鎖模精度高
- 高強度鎖模系統：鎖模精度高
- 鑽心式鎖模系統：鎖模精度高
- 高精度鎖模系統：鎖模精度高

射膠曲線圖
Injection curve diagram

- 射膠速度設定值：Injection velocity setting
- 射膠速度實際值：Injection velocity actual
- 噴嘴壓力設定值：Injection pressure setting
- 噴嘴壓力實際值：Injection pressure actual
- 高精度鎖模系統：高精度鎖模系統
- 高強度鎖模系統：高強度鎖模系統

新型的整體模板
New design platen

高剛性

- 高精度鎖模系統：高精度鎖模系統
- 新型的整體模板：高剛性

高強度

- 高精度鎖模系統：高精度鎖模系統
- 新型的整體模板：高精度鎖模系統
功能完善的注塑控制系统
Injection control system with powerful function

- Advanced AF-1000 system: Equips with the latest HMI, which has mold data memory system and can show SPC production parameters. Closed loop control can be chosen which integrates easy operation and high accuracy of operation.
- Centralized production management network system.
- Equips with PID automatic temperature control.
- Reliable control and electrical components are chosen.
- Production management and monitoring system are installed in order to fulfill nowadays requirement of quality and manufacturing.
- The control system is designed ergonomically with good man machine interface. Multi-level safety interlock is implemented to ensure operator safety.

輔助的軟件系統 (選配) Add-on software system (Option)

**LK-NET** management system
LK-NET 生產管理系統

LK-NET is developed by LK for central management of all machines in the production floor. By means of the networking technology, the system can centralize all data collection and thus reduce unnecessary labour.
- Network for monitoring production process data
- Network for monitoring injection process
- Network for collecting production status and data
- Network for management of die parameters

LK-NET II series-Direct hydraulic structure equipped with servo power pack. The injection molding machine which is a complex design of energy-saving and low noise, integrated the characteristics of electric and hydraulic type machine.

節能 Energy-saving

采用伺服系统的驱动器，液压系统按生产实际需要的流量和功率来工作，克服了普通液压系统高压溢流的高能耗。在压力、流量、速度等参数工作模式下，伺服驱动的液压系统比普通液压系统节省了能耗12%—20%。

The direct hydraulic injection molding machine adopt servo power pack, provide the power with the actual requirement in the hydraulic system, solve the production with high power consumption that compared with fixed pump. Motor follows the setting rotary speed in Plasticizing, Clamping and injection which is in high flow rate, and decrease the rotary speed in Packing and Cooling which is in low flow rate, produces energy savings from 20% to 50% or more!

精密—壓力穩定 Stable and precision pressure

伺服系統調節輸出壓力，壓力以其循環控制模式，使系統壓力保持穩定，提高了塑料產品的成型質量。射出與運動位置準確度高，生產的產品一致且佳，伺服系統還可以按照計算機設定的任意壓力，流量曲線進行，為生產各種塑料產品的成型工藝創造了條件。

Adjustable servo power pack, close loop control for hydraulic pressure to provide a very stable system pressure and increase the molding quality for the products, Repeatable injection control to achieve consistent production. Production with adjustable curve control for pressure and flow rate, to provide the conditions for the molding technology.

生產效率高—伺服速度快 Fast response speed and high efficiency production

伺服系統反應速度快，壓力上升和流量上升的時間快達30ms，提高了生產系統的反應速度，減少了動作時間和時，加快了整體的生產節拍。注塑機器的系統動作時，閥門打開，系統壓力會瞬間下降，伺服可以設在30ms以內迅速轉換流量，恢復壓力至設定值。

Fast response speed for servo power pack, the rise time for Pressure and Flow fast to 30ms. Increase the reaction speed for the hydraulic system, decrease the converting time between each action, accelerate the machine production. Hydraulic system can be compensated the decompression in 30ms when valves opened in production to recovery and reach the setting pressure.
Achieve the top level of energy-saving standards

China ENERGY LABEL
Low energy consumption

1. 力勤EFFORT II-11 PT180直射式伺服注塑機與某品牌160T注塑機的節能測試比較

Comparison between EFFORT II-PT180 and another brand of 160tons FDP machine.

測試產品圖片 Product image

測試結果對比 Comparison

節能41%

2. 力勤EFFORT II-11 PT250直射式伺服注塑機與某品牌250T注塑機的節能測試比較

Comparison between EFFORT II-PT250 and another brand of 250tons FDP machine.

節能54%

部分測試、計量器具及工具
Measuring and Testing Instruments Tools
One of the major injection molding machine makers in China
Offer a highly automated comprehensive plastic injection molding cell with efficient
digital plant management system