



IMPRESS-PLUS

LARGE TONNAGE COLD CHAMBER DIE CASTING MACHINE

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IMPRESS-PLUS Series

High performance large tonnage die casting machine

1 Energy Saving System

Saving on average >50% of energy consumption by equipping with servo motor.

2 Platen Surface Hardening Technology (Optional)

Platen surface is heat-treated to prevent horizontal pits.

3 Quick Die Change System (Optional)

Reduces manpower and machine idle time during mold change.

4 Intuitive Control

Intelligent control unit makes operation easier and more convenient.

5 Safety and Aesthetics

Enclosed clamping unit with safety guard and safety door ensure safety and enhance aesthetics.

6 Reliability

State-of-the-art manifold with independent relay for quick pressurization and unibody manifold design.

7 Convenience

Standard front and rear working platform for easier maintenance; aesthetically designed piping and tubing for better working experience.



Better Quality



Precise Machining

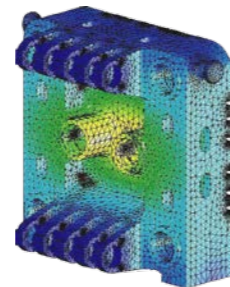
The group has introduced several mega-scale precise machining centers from places such as Europe and Japan that are capable of machining large scale machines. Machining on the platens takes only one time, providing reliability to the clamping unit.

Quality Control

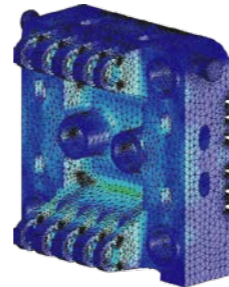
The main components such as the three platens and the toggle are inspected using large CMMs for high precision and accuracy on the core parts.

Research and Development

Platen designed with finite element analysis capable of mega-scale applications, having high rigidity, high strength and can lengthen machine lifespan.



Displacement analysis



Stress analysis

Smart Control Unit

High efficiency, passing rate, stability
LOW production cost, machine down time



Smart injection

Smart Injection enables real time precise control of important injection parameters in the production of high quality and high requirement casted parts.



Statistical process control

Enables easy management in the quality control of casted product with real time monitoring of the actual casting process parameters.

Reliable database for process parameters and easy to access.

Enables to reduce the times spent in product inspection if coupled with the extraction robot.



Smart control unit with flash-free technology

There is a braking mechanism at the end of injection. It effectively solves the flashing and material spill problem associated with injection. Also it can raise the lifespan of the mold by reducing the impact on it, and product quality can be increased.



Smart die height adjustment system

Equipped with technology to automatically adjust the mold height position to the correct value, thus shortening die changing time.

LK intelligent system can diagnose the core parts if any overloading exists and avoiding malfunctions and problems.



Curves on parameters

Several injection curves can be displayed on the HMI, including plunger position, injection speed, casting pressure, outlet pressure and inlet pressure...etc. which helps customers to analyse product quality.

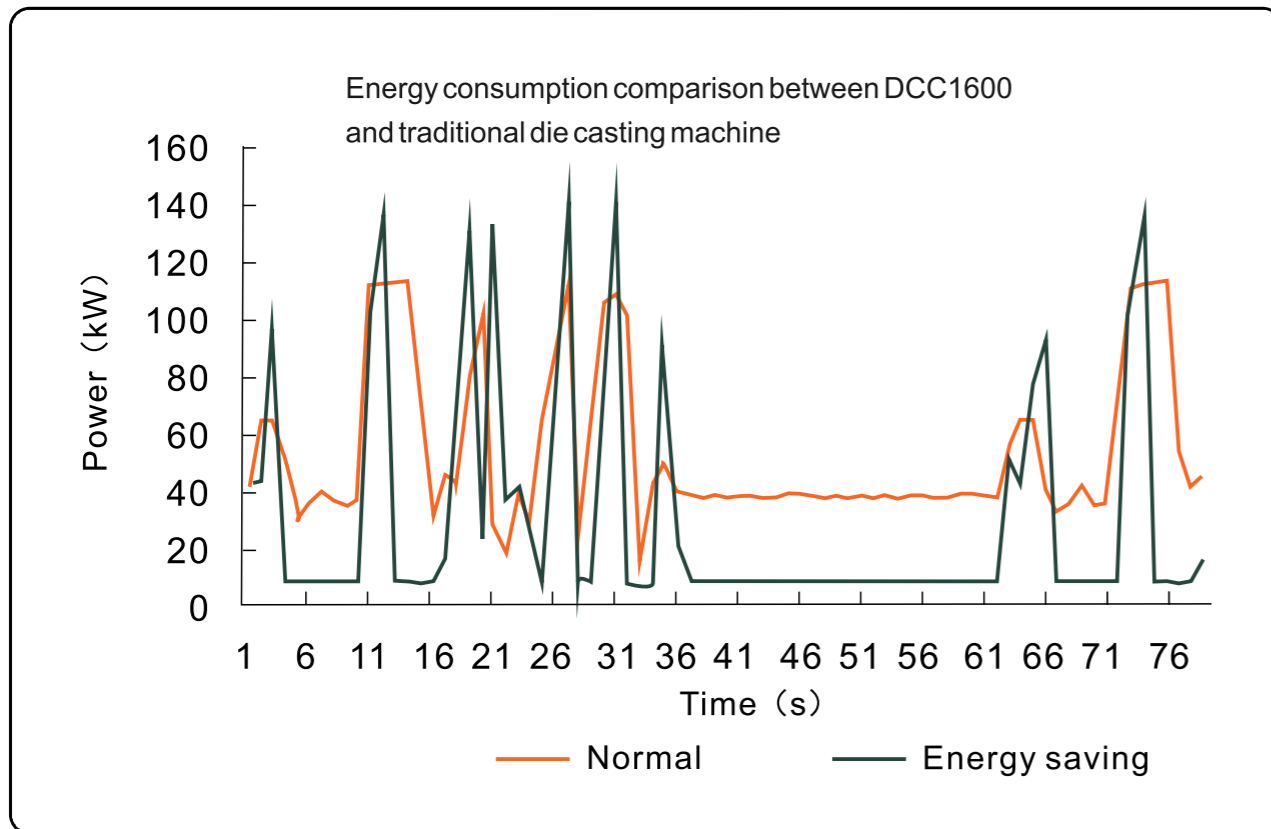


Quick die change system

It shortens die changing and machine down time, thus reduces labor and increases production efficiency.

Energy Saving System

A traditional die casting machine is idle at close to 50% of the production cycle, plus their motors cannot change the speed, thus wasting a lot of energy. IMRPESS-PLUS is equipped with variable speed servo motor which operates only when needed. Furthermore, the quick response time of the servo motor shortens dry cycle time, effectively lowers the energy consumption of the whole machine by >50% comparing to traditional die casting machines.



● Data source: 3-phase electricity analysis

Contents	Traditional die casting machine	Energy saving die casting machine	Energy saved	Energy saving percentage
Energy consumed per cycle	0.876 kWh	0.354 kWh	0.522 kWh	59.5%
Energy consumed per hour	52.56 kWh	21.24 kWh	31.32 kWh	59.5%
Energy consumed per day <small>(Assuming 22 hours operation daily)</small>	1156.32 kWh	467.28 kWh	689.04 kWh	59.5%

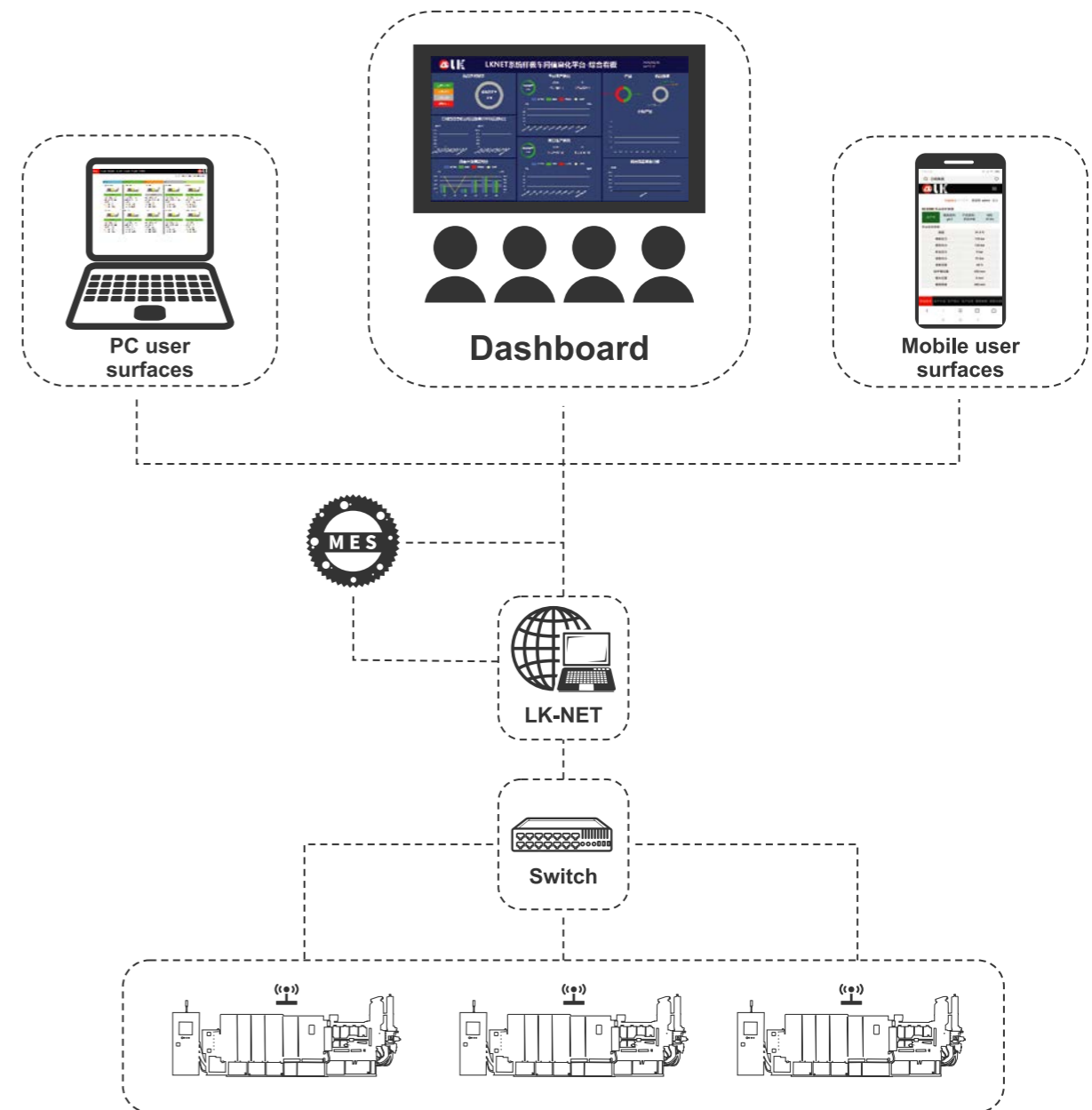
● Big tonnage machine actual energy consumption

LK-NET (optional)

The unique monitoring system from LK monitors the production status of the die casting machine and the peripherals using Ethernet on a realtime basis, achieving remote monitoring on the user's computer or mobile phone.

It provides an alternative way for administrators and operators to check the operation status.

- Realtime monitor on production status
- Realtime cycle monitoring on equipment/die
- Overview of the plan and actual
- Realtime overview of the production shopfloor
- Analysis on Overall Equipment Effectiveness (OEE)



Complete Automation Solution For Die Casting

Highly Integrated • Efficient • Intelligent

Die Temperature Stabilization Solutions



Die temperature controller



High pressure jet cool system



Vacuum system

Product Cooling Solutions



Water cooling device



Air cooling device

Runner Removal Solutions



Knock off station



Breaking machine

Runner Removal Solutions

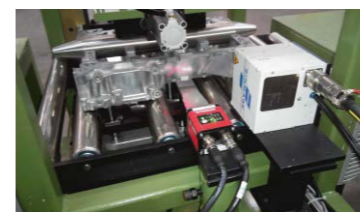


Saw table



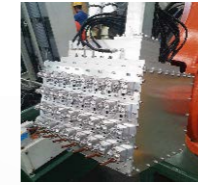
Trim press

Product Tracing Program



Label reading device and laser marking system

Spraying Solutions



Standard spraying head



Imitation spraying head

Air Exhaustion Solution



Dust gathering lid and dust removal system

Extraction Solutions



Standard gripper



Specialized gripper

Palletizing System



Palletizing system frame

