



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

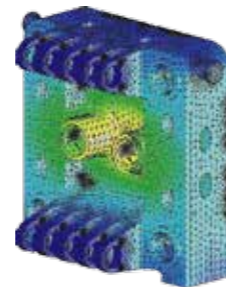
The group has introduced several mega-scale precise machining centers from places such as Europe and Japan that are capable of machining large scale machines. Machining on the platens takes only one time, providing reliability to the clamping unit.

Quality Control

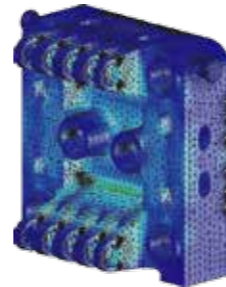
The main components such as the three platens and the toggle are inspected using large CMMs for high precision and accuracy on the core parts.

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.

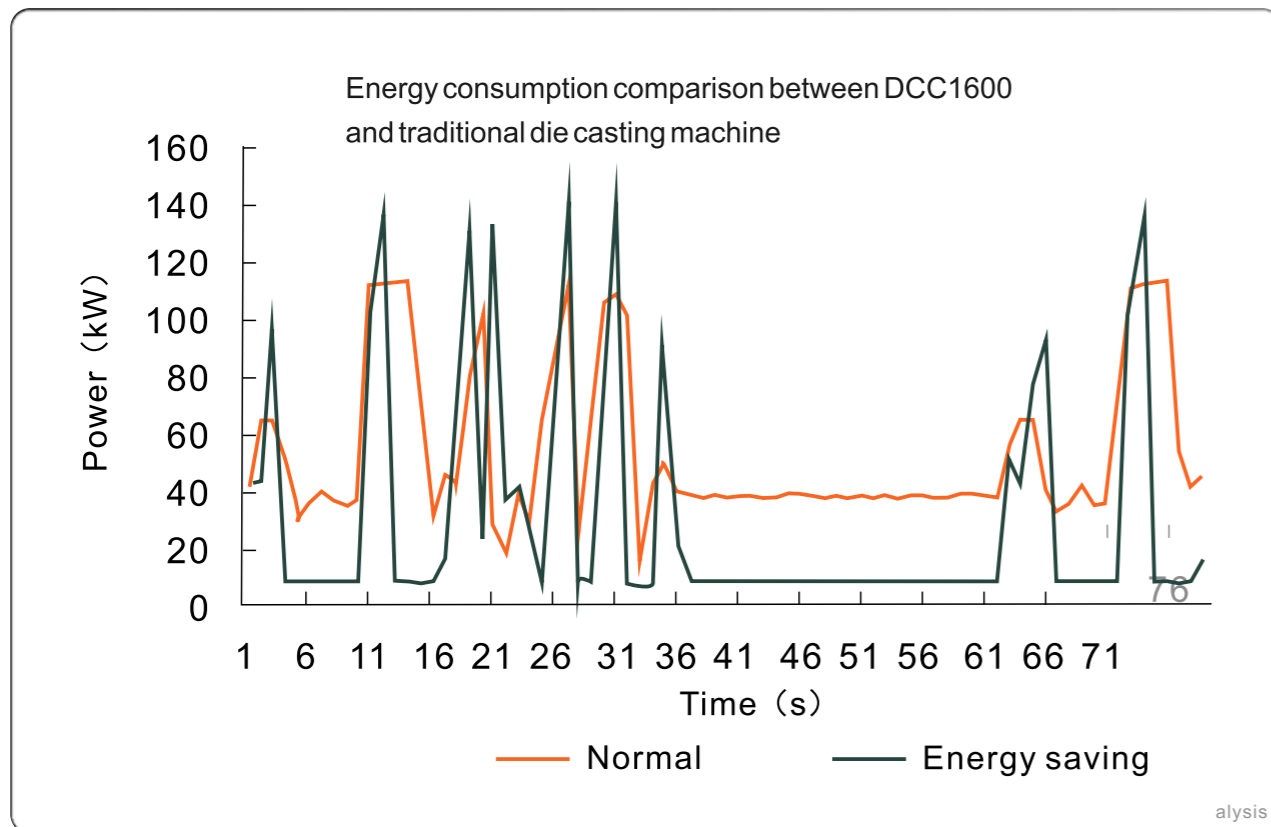


Quick die change system

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 an

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%

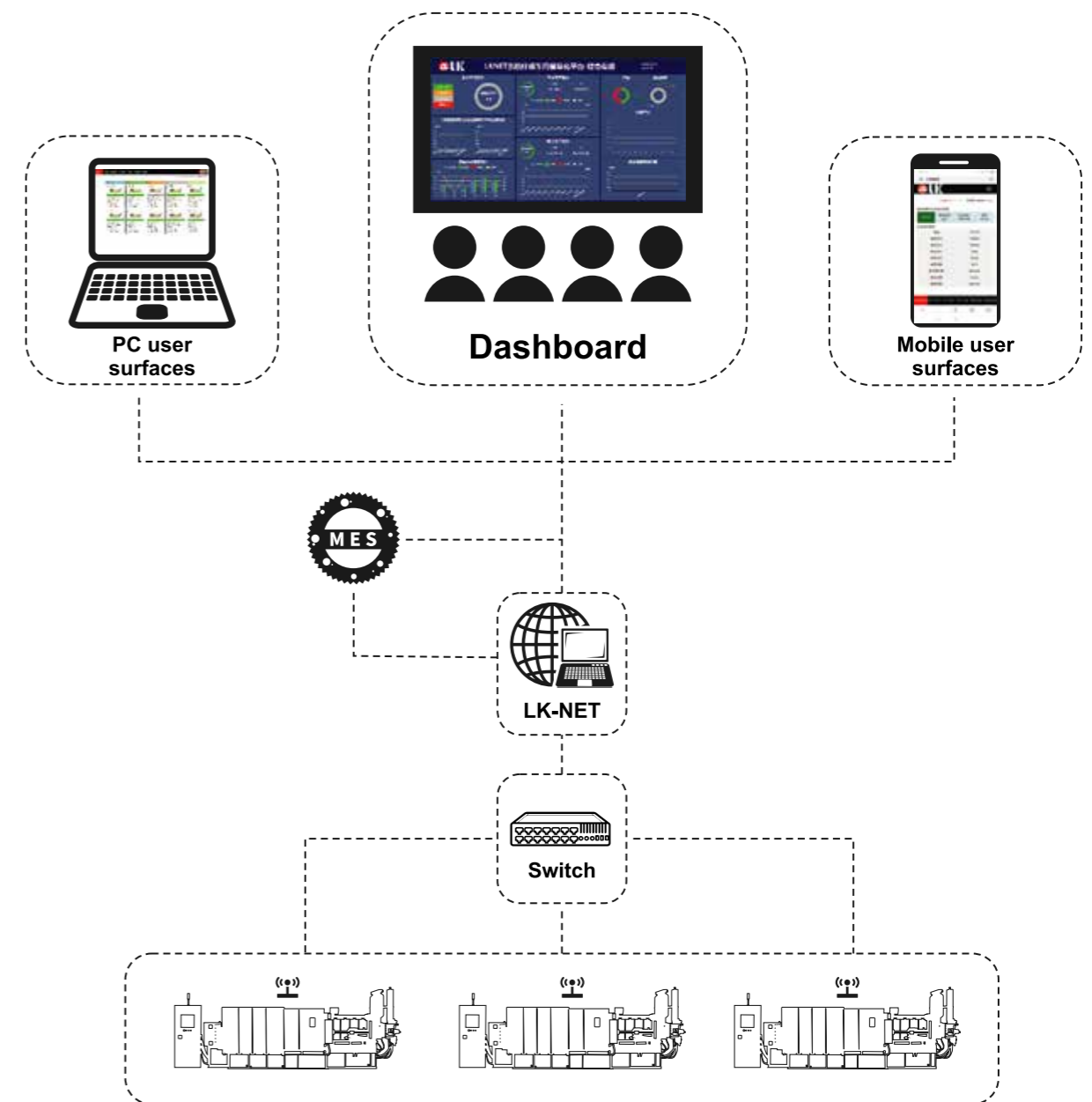
● Big tonnage machine actual energy consumption

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

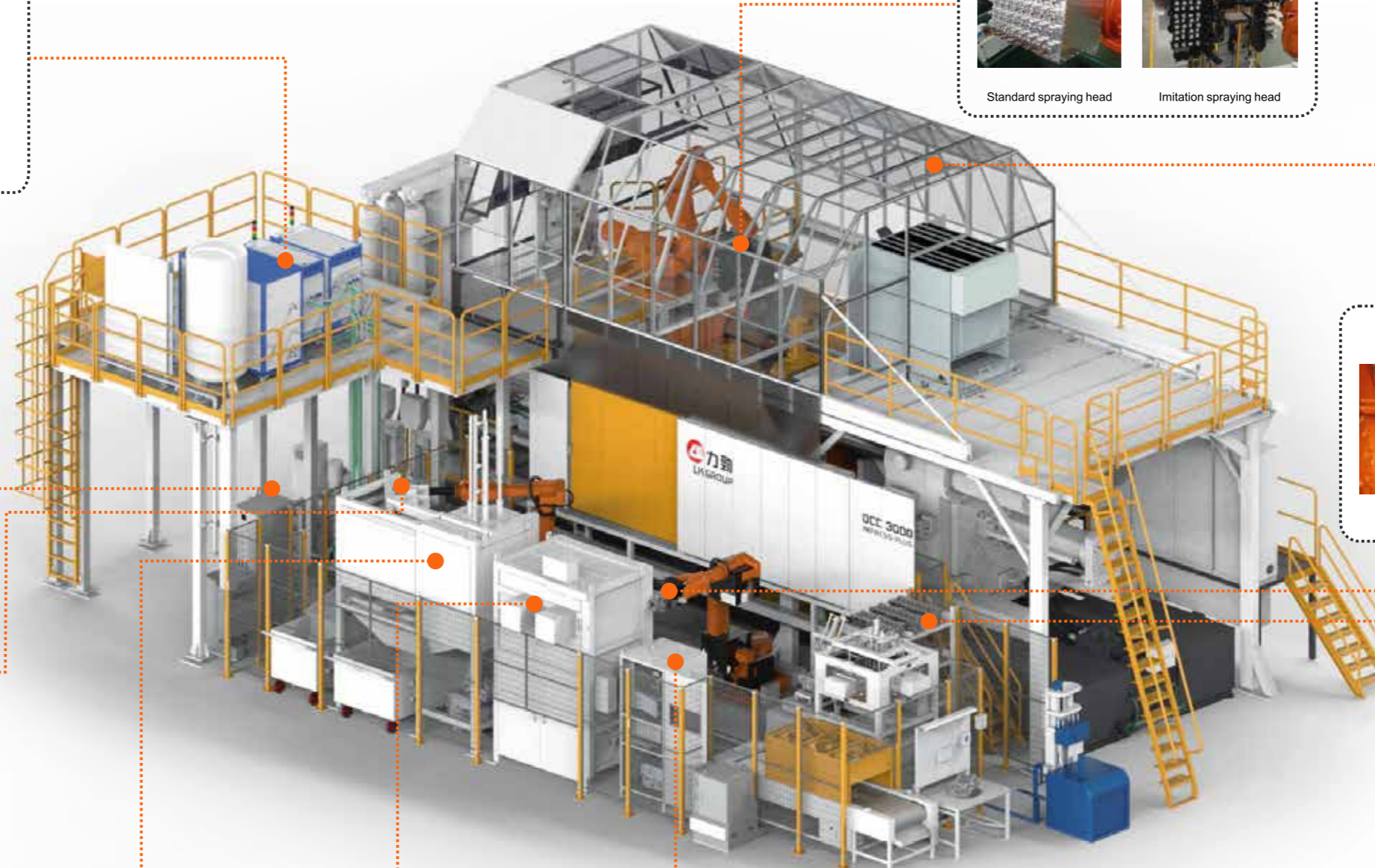


Specialized gripper

Palletizing System



Palletizing system frame



IMPRESS-PLUS Series

Specifications

ITEM	UNIT	DCC1000	DCC1250	DCC1600	DCC2000
Clamping Force	kN	10000	12500	16000	20000
Clamping Stroke	mm	880	1000	1200	1400
Die Height (min. – max.)	mm	450-1150	450-1180	500-1400	650-1600
Platen Size (H x V)	mm	1620 x 1620	1730 x 1740	1980 x 1980	2150 x 2150
Space Between Tie Bars	mm	1030 x 1030	1100 x 1100	1250 x 1250	1350 x 1350
Injection Force (with intensification)	kN	882	1075	1285	1500
Injection Stroke	mm	800	880	930	960
Plunger Diameter	mm	90-120	100-140	110-150	130-170
Shot Weight (Al)	kg	9.5-16.9	13.0-25.4	16.6-30.8	23.9-40.8
Casting Pressure (with intensification)	MPa	138.6-78	137-70	137-73	113-66
Casting Area	cm ²	721-1282	910-1785	1165-2190	1769-3030
Max Casting Area (under 40MPa)	cm ²	2500	3125	4000	5000
Shot Position	mm	-150,-300	-160,-320	-175,-350	-175,-350
Plunger Penetration	mm	300	320	360	400
Diameter of Pressure Chamber Flange	mm	240	240	260	260
Height of Pressure Chamber Flange	mm	20	25	25	30
Ejector Force	kN	500	570	570	650
Ejector Stroke	mm	200	200	250	300
Hydraulic Working Pressure	MPa	16	16	16	16
Hydraulic Oil Tank Capacity	L	1600	2500	2900	3200
Machine Dimensions (L x W x H)	mm	11260 x 5750 x 4000	12800 x 5800 x 4560	13000 x 6000 x 4620	14500 x 6300 x 4750

• We reserve the right to make any technical improvements without further notice.
The machine dimensions do not include furnace and control cabinet.

DCC2500	DCC3000	DCC3500	DCC4000	DCC5000	DCC6000
25000	30000	35000	40000	50000	60000
1500	1500	1600	1800	1900	2300
800-1800	850-2000	850-2000	900-2100	1100-2100	1200-2400
2350 x 2350	2620 x 2620	2800 x 2800	2800 x 2800	3000 x 3000	3550 x 3550
1500 x 1500	1650 x 1650	1750 x 1750	1850 x 1850	1950 x 1950	2300 x 2300
1800	2000	2410	2410	2720	2920
1050	1180	1400	1400	1600	1600
140-180	150-190	160-200	160-200	170-210	190-230
30.3-50.1	39.1-62.7	52.7-82.4	52.7-82.4	70.8-108	88.4-129.6
117-70.5	113-70.5	120-77	120-77	120-79	100-70
2136-3546	2654-4255	2910-4540	3330-5190	4170-6360	6000-8590
6250	7500	8750	10000	12500	1500
-200,-400	-250,-450	-300,-600	-300,-600	-300,-600	-300,-700
450	530	600	600	700	700
280	280	320	320	340	350
30	30	35	35	35	40
750	900	1000	1000	1100	1100
300	300	350	350	400	400
16	16	16	18	18	18
3700	3800	4500	4500	4900	7000
15200 x 6600 x 5080	15500 x 6900 x 5190	18700 x 7000 x 6090	18700 x 7000 x 6090	18900 x 7600 x 6090	19540 x 11130 x 6390

Platen Dimensions

