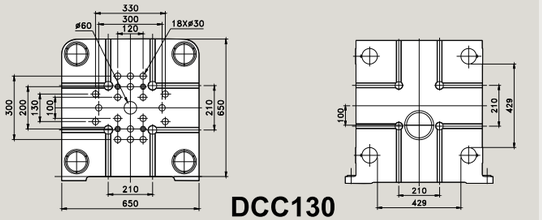
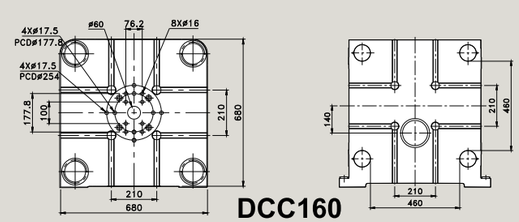
Platen Dimensions



DCC130



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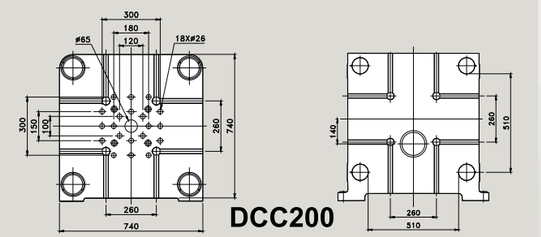

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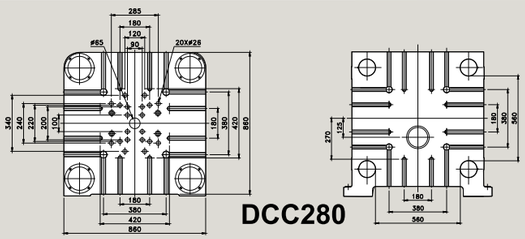

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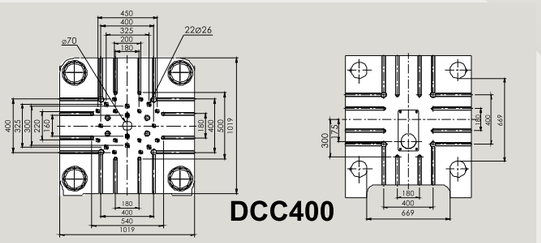

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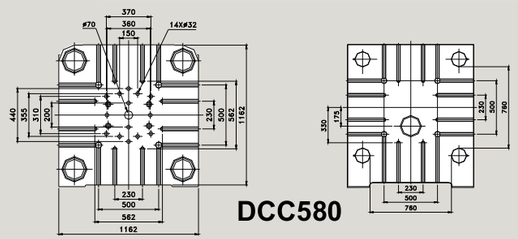

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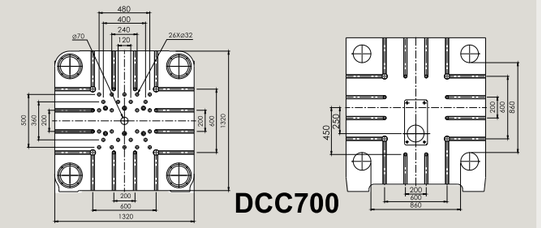

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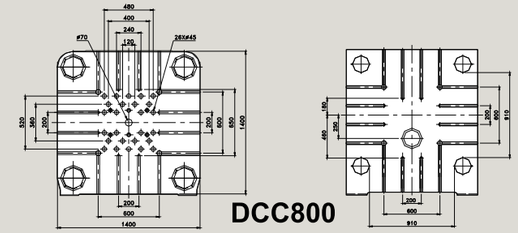
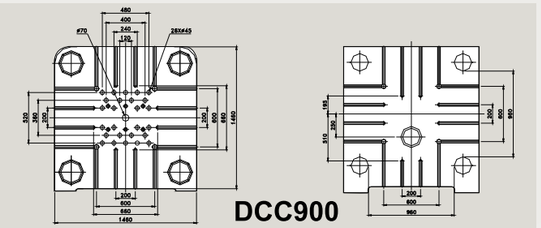


DCC800



DCC900

IMPRESS-PLUS

ENERGY EFFICIENT COLD CHAMBER DIE CASING MACHINE

LK Machinery International Limited

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Sales Contact :

CAT.NO.: E20-08-10

To Be Better In Every Way

1 **Energy Saving System**

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

2 **Quick Die Change System (Optional)**

Reduces manpower and machine idle time during mold change.

3 **Smart Die Height Adjustment**

Customer just need to set the target clamping force, machine will automatically adjust the die height accordingly to each die tool, thus, tool change time is brought to a minimum.

4 **Meter Out Injection Control**

Injection speed is controlled at the outlet side of the cylinder allowing faster acceleration in the transition phase. The plunger can be decelerated at the end of injection avoiding pressure spikes which cause flash and damage on die.

5 **Intuitive Control**

The simple operator panel layout and integrated display panel make operation easier.

6 **Platen Surface Hardening Technology (Optional)**

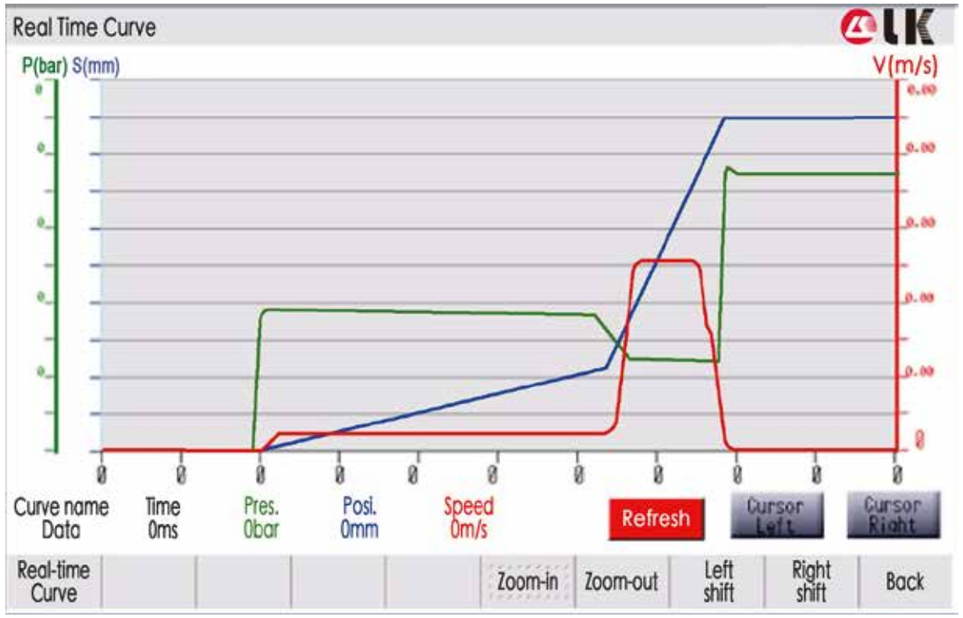
Platen surface is heat-treated to prevent horizontal pits.

∗ The machine shown includes floor mounted door (optional).

Capable Injection, Steady Quality And Great Efficiency

Advanced Control System

LK control system technology allows effortless production. IMPRESS-PLUS is equipped with multiple automated features developed to simplify machine operation and maximize machine production time. In additional to the standard features, many other peripheral equipment can be configured to create a fully automated production cell.

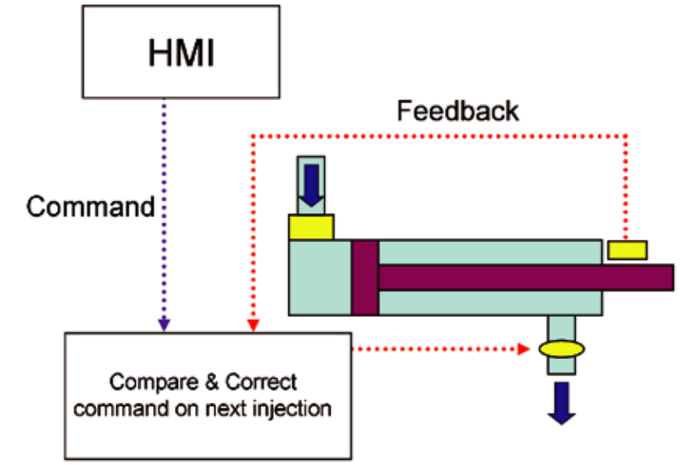


All-around Monitoring

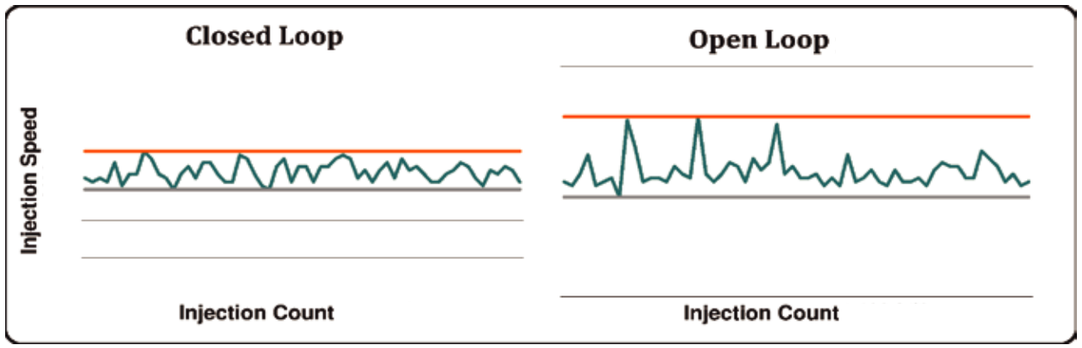
IMPRESS-PLUS is equipped with injection curve display to monitor each casting shot. Online quality monitoring allows defective casting to be detected if injection speed is out of range. The entire machine can be monitored from easy navigate pages.

Highly Capable Smart Injection Control System

IMPRESS-PLUS is equipped with a comprehensive injection control system simplifying the setup process. Speed and position values are directly inputted to create the injection profile for each product. The control system has the ability to store these settings for future use to improve setup efficiency.

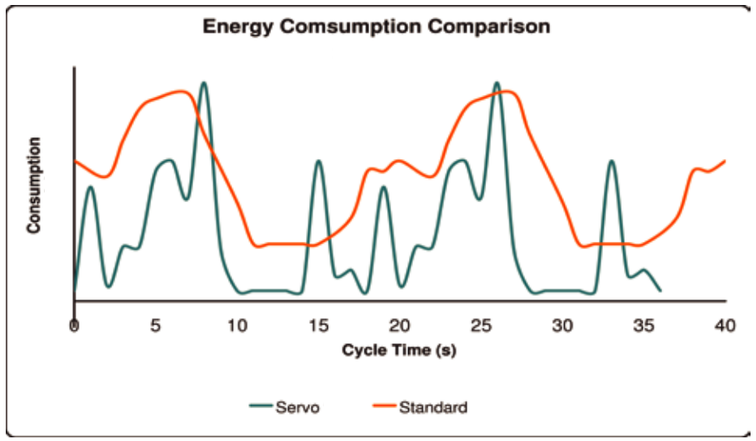


The LK Smart Injection Control System provides highly repeatable injection performance by using closed loop system. The system includes real-time control in the slow phase and fast phase speed adjustment on the following injection. The deceleration capability prolongs the service life of the die tool and eliminates flashes in the product.



Energy Saving System

IMPRESS-PLUS will provide savings from the very beginning of production operation. A die casting machine is idle at about 80% of a production cycle. IMPRESS-PLUS is equipped with servo motor where energy is only consumed when required. It will achieve more than 50%* reduction in electricity consumption compared to standard motors. Dry cycle time is reduced by the fast response of servo motor to directly control hydraulic oil flow and pressure.



Item	Standard Motor (A)	Servo Motor (B)	Actual Energy Saving (A-B)	Percentage of Energy Saving
Energy Consumption per cycle	0.19 kWh	0.07 kWh	0.12 kWh	63. 16%
Energy Consumption per hour	14.34 kWh	5.74 kWh	8.60 kWh	59. 97%
Energy Consumption per day (22 working hours per day)	315.44 kWh	126.26 kWh	189.18 kWh	59. 97%
Energy Consumption per month (26 working days per month)	8201.34 kWh	3282.71 kWh	4918.63 kWh	59. 97%
Energy Consumption per year (12 months per year)	98416.03 kWh	39392.50 kWh	59023.53 kWh	59. 97%

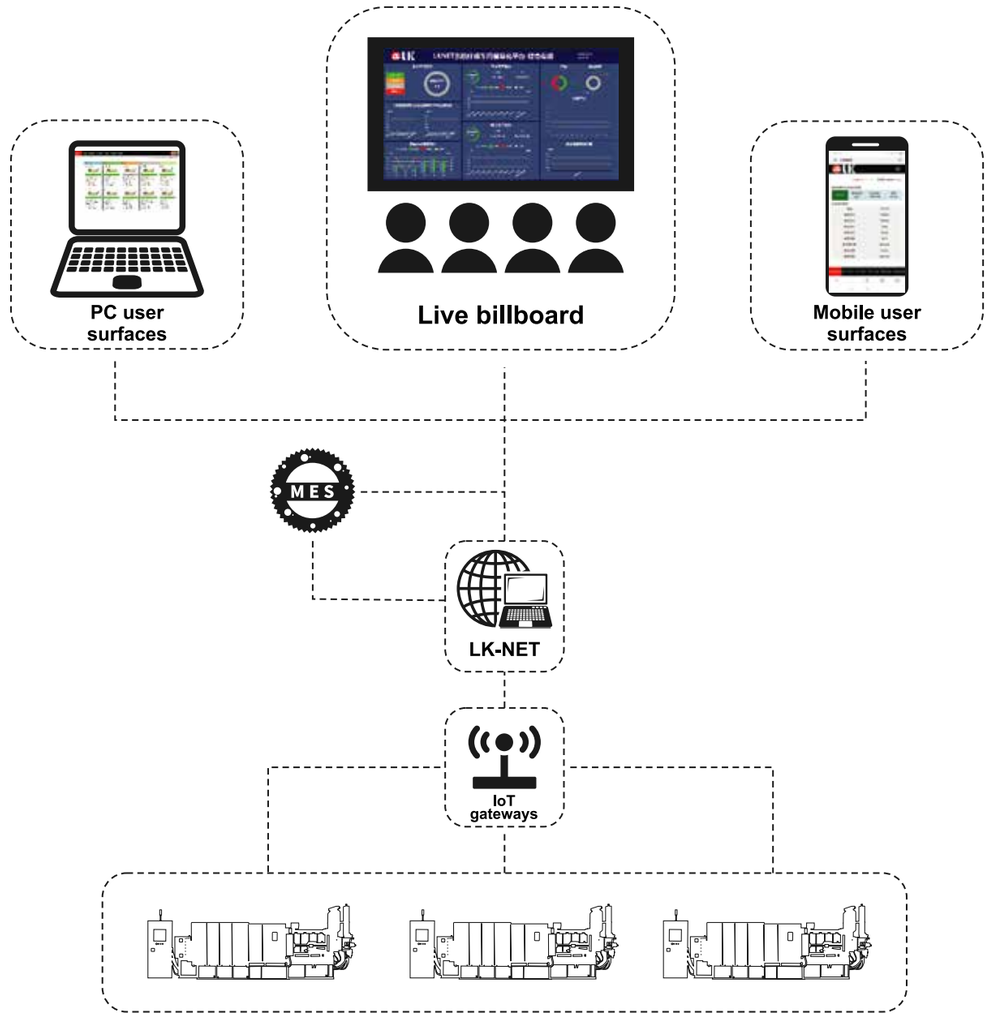
Energy consumption data of DCC400 obtained from a client producing automotive parts

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 equipment operating condition
- Life cycle monitoring on equipment/die
- Quick delivery of production order
- Realtime monitor on workshop operating condition
- Analysis on OEE for each equipment
- Statistics on the production volumen of equipment



High Performance Peripherals

LN Series 5-axis Ladler

Model	LN-02	LN-04	LN-06
Applicable DCM	130-400 T	580-800 T	900 T
Ladle Amount	1.0-3.5 kg	3.5-8 kg	8-20 kg
Ladling Accuracy	± 2 %	± 2 %	± 2 %
Ladle Cup Size	1/1.5/2.5/3.5/4.5/6/8/10/12kg		
Min. Crucible Diameter	480 mm	580 mm	800 mm
Ladle Motor	0.2 kW	0.2 kW	0.4 kW
Arm Motor	0.75 kW	0.75 kW	1.5 kW
Control System	Controlled by Die Casting Machine Control Cabinet		
Position Control	Digital setting on screen		

ST-V Series Servo Sprayer

Model	ST-01V	ST-02V	ST-03V	ST-04V
Applicable DCM	130-200T	280-400T	580T	630-900T
No. of Sprayer Nozzles on Fixed Platen	Total no.: 10 (2 rows x 5 pieces)	Total no.: 14 (2 rows x 7 pieces)	Total no.: 18 (2 rows x 9 pieces)	Total no.: 18 (2 rows x 9 pieces)
No. of Sprayer Nozzles on Moving Platen	Total no.: 10 (2 rows x 5 pieces)	Total no.: 14 (2 rows x 7 pieces)	Total no.: 18 (2 rows x 9 pieces)	Total no.: 18 (2 rows x 9 pieces)
Air Blow Amount	Total no.: 10 (Moving Platen: 5, Fixed Platen: 5)	Total no.: 14 (Moving Platen: 7, Fixed Platen: 7)	Total no.: 16 (Moving Platen: 8, Fixed Platen: 8)	Total no.: 16 (Moving Platen: 8, Fixed Platen: 8)
Sprayer Head Control Unit	Controlled Based on row, 1unit per row, totaling 4 units			
Vertical Stroke	650mm	800mm	1100mm	1300mm
Base Stroke	250mm	250mm	400mm	400mm
Servo Motor Power	3.0 kW	3.0 kW	3.0 kW	4.4 kW
Control System	Controlled by Die Casting Machine Control Cabinet			
Method of Spraying Time Adjustment	Digital setting on screen			

EP-V Series Servo Extractor

Model	EP-01V	EP-02V	EP-03V	EP-04V
Applicable DCM	130-200 T	280-400 T	580T	630-900T
Gripper Diameter	40-80 mm	40-80 mm	50-90 mm	60-110 mm
No. of Gripper Fingers	2	2	3	3
Extracting Force	68 kgf	68 kgf	98 kgf	98 kgf
Max. Extracting Stroke	250mm	250mm	300mm	300mm
Air Pressure	6 kgf/cm^2	6 kgf/cm^2	6 kgf/cm^2	6 kgf/cm^2
Casting Weight	3 kg	4 kg	6 kg	6 kg
Servo Motor Power	0.85 kW	0.85 kW	1.3 kW	1.3 kW
Control System	Integrated control on DCM's screen			

IMPRESS-PLUS Specificaions

	ITEM	UNIT	DCC130			DCC160			DCC200			DCC280		
CLAMPING UNIT	Clamping Force	kN	1450			1600			2000			2800		
	Die Opening Stroke	mm	350			380			400			460		
	Ejector Force	kN	108			108			108			150		
	Ejector Stroke	mm	85			85			100			105		
	Die Height (Min.- Max.)	mm	250－500			200-550			200-600			250-650		
	Die Platen Size（H×V）	mm	650×650			680×680			740×740			860×860		
	Space Between Tie Bars	mm	429×429			460×460			510×510			560×560		
INJECTION UNIT	Injection Position	mm	0	-100		0	-70	-140	0	-140		0	-125	
	Injection Stroke	mm	320			340			370			400		
	Injection Force（Intensify）	kN	220			270			270			330		
	Plunger Diameter	mm	40	50	60	40	50	60	50	60	70	50	60	70
	Injection Weight (Al)	kg	0.7	1.15	1.6	0.8	1.3	1.8	1.35	1.95	2.65	1.5	2.1	2.9
	Casting Pressure (Intensify)	MPa	175	112	77	214	137	95	137	95	70	168	116	85
	Casting Area	cm²	82	129	186	74	116	167	145	209	285	166	239	326
	Max. Casting Area (40MPa)	cm²	362			400			500			700		
	Chamber Flange Diameter	mm	110			101. 6			101. 6			101. 6		
	Chamber flange Height	mm	10			12			12			12		
	Plunger Penetration	mm	115			135			140			140		
OTHERS	Working Pressure	MPa	14			14			14			14		
	Oil Tank Capacity	L	480			520			550			670		
	Machine Dimensions*(L×W×H)	mm	5770×1750×2590			5770×1780×2570			6060×1850×2605			6390×1960×2675		
	Machine Weight#	T	6.5			7			8			11.5		

DCC400			DCC580			DCC700			DCC800			DCC900			
4000			5800			7000			8000			9000			
550			580			720			760			800			
180			240			315			315			360			
125			140			160			180			190			
300-700			350-850			350-900			400-950			400-1000			
1019×1019			1162×1162			1320×1320			1400×1400			1480×1480			
669×669			760×760			860×860			910×910			960×960			
0	-175		0	-175		0	-250		0	-250		0	-250		
500			580			700			760			760			
410			480			590			680			775			
60	70	80	70	80	90	80	90	100	80	90	100	80	90	100	110
2.7	3.6	4.7	4.2	5.4	6.9	6.5	8.3	10	7.1	9	11.2	7.1	9	11.2	13.5
145	106	81	124	95	75	117	92	75	135	106	86	154	121	98	81
275	375	490	465	607	768	596	754	931	591	748	924	583	738	912	1103
1000			1450			1750			2000			2250			
101. 6			165			165			200			200			
12			15			15			20			20			
200			250			250			295			300			
14			14			14			14			14			
800			1000			1200			1300			1400			
7250×2120×2810			7750×2240×2855			8565×2360×2945			8940×2480×2995			9360×2660×3355			
15.5			20.5			29			31.5			37.5			

■ Option

* The machine dimensions do not include furnace and control cabinet.

\# Machine weight is for reference, does not include any options or peripherals.

• We reserve the right to make any technical improvements without further notice.