

# EKW Series



The Passionate Pursuit of Perfection

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# EKW Series

EKW Hydraulic Servo Energy  
Saving Injection Moulding Machine



Injection Moulding Machine

# EKW Series

## EKW Hydraulic Servo Energy Saving Injection Moulding Machine



### Large

With wider platen and central clamping toggle, at the same tonnage model, larger opening stroke, wider tie bar space and greater mold height.

### Energy-saving

By sampling test, the application of the latest servo system technology for the same tonnage model to do the same product, under the same condition, Bole machines save 15% at least than the traditional servo energy saving machine;

It is recommended to choose the latest electric charging solution onto Bole. For the same tonnage model, the energy consumption of charging unit can save more than 35%, and the energy consumption of the whole machine can save more than 15%.

### Accurate

Precision control adopts the latest hydraulic oil circuit design & patent intelligent software control. The repeat precision of opening/closing mold position reach  $\pm 0.5\text{mm}$ ;

Injection unit adopts linear guide rail & special cylinder with low oil return resistance & patent intelligent software control, and the repeat accuracy of injection weight reach 0.2% according to the new international standard GB/T25156-2020.

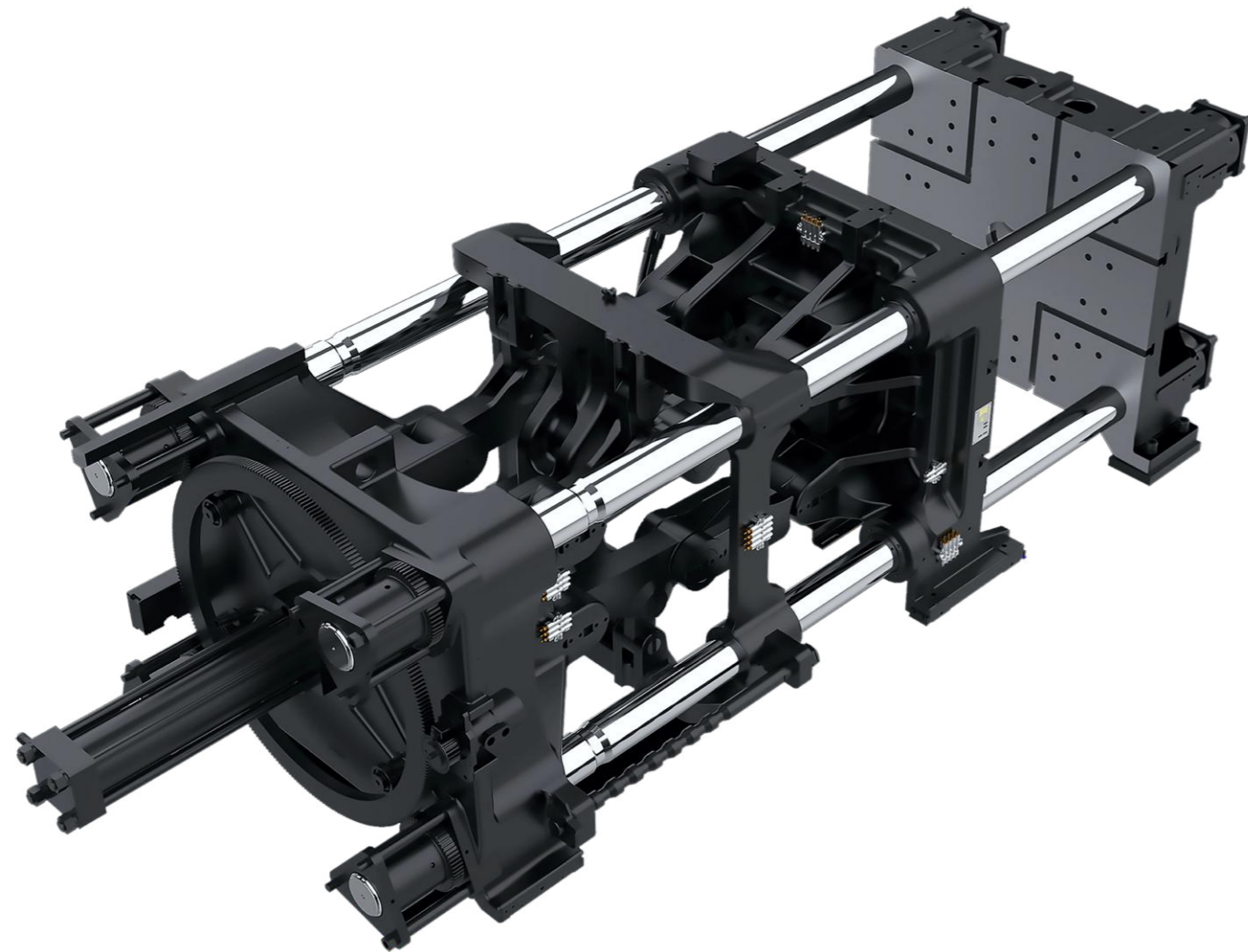
### Economy

By sampling test, Bole central clamping structure can save 2-5% raw materials for more than 80% of molds. For example, using the same mold with the same amount of raw materials to do 100 pcs, Bole machine can produce 102-105 pcs.

With Germany design plasticizing unit, plasticizing efficiency is greater, saving the charging time.

# Large

(under the condition of the same tonnage)



# Large

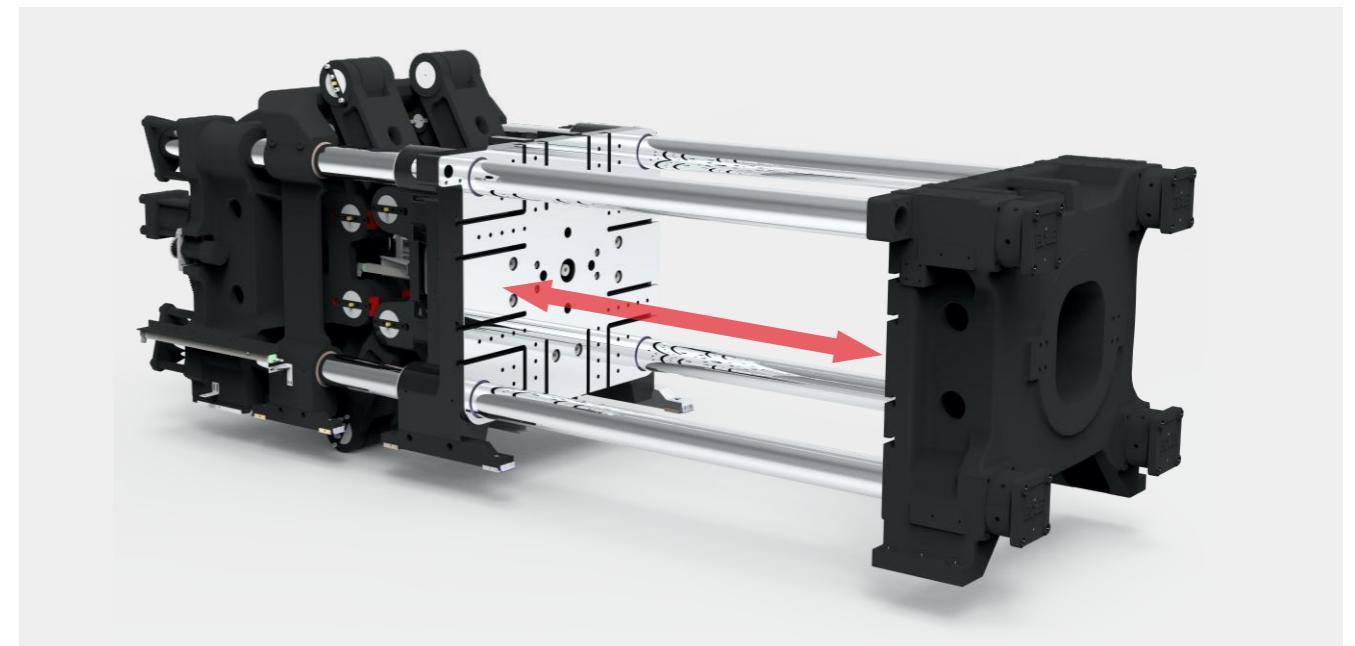
(under the condition of the same tonnage)

# Large

- 1. Larger opening stroke. At the same tonnage models, with widen-platen central-clamping structure, opening stroke is larger than peers, suitable for installation of larger mold (Especially deep-cavity mold).
- 2. Wider tie bar space. Applied more mold dimension range and higher mold applicability; the platen structure can protect the mold better and extend mold life.



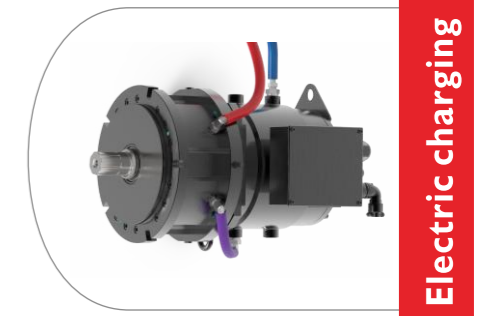
- 3. Large mold capacity: suitable for larger mold dimension range



# High Efficiency Energy Saving And Zero Emission

1. Adopt the latest servo system technology
2. Recommend the latest electric charging solution
3. Patented control technology

# Green Energy Saving



## Energy-saving

- After sampling testing by Bole, with the application of the latest servo system technology, the same tonnage model to produce the same product, under the same condition, It can save energy more than 15% than the traditional servo machine.
- The latest EKS-ECO hybrid energy saving injection molding machine is recommended. With the integrated energy saving solution of electric charging function, new heating design and the latest servo system, the energy consumption of the whole machine can be saved more than 18%.

Reduce energy consumption and meet Energy Saving and Environment Friendly •

# Accurate

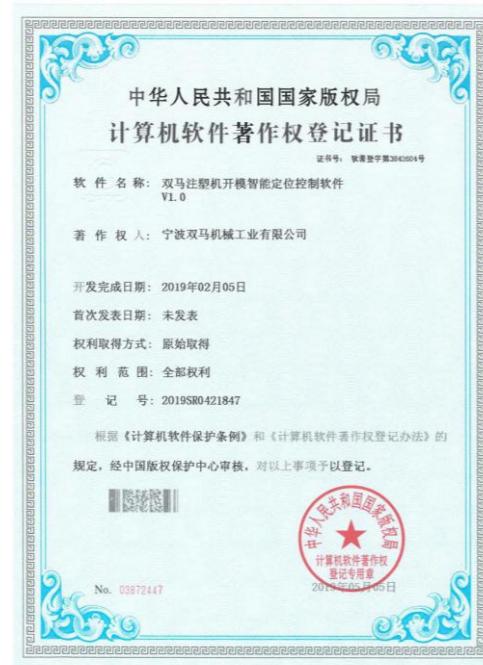
- 1. Precision control adopts the latest hydraulic oil circuit design & patent intelligent software control, to guarantee the repeat precision of opening/closing mold position  $\pm 0.5\text{mm}$ ; and the repeat accuracy of injection weight 0.2% according to the new international standard GB/T25156-2020.

Intelligent algorithm for mold opening/closing

## Two important factors for accuracy

Patent intelligent software control and unique oil circuit design guarantee factors for accuracy.

- Efficient
- Stable
- Accurate



### 2. Human-computer interaction

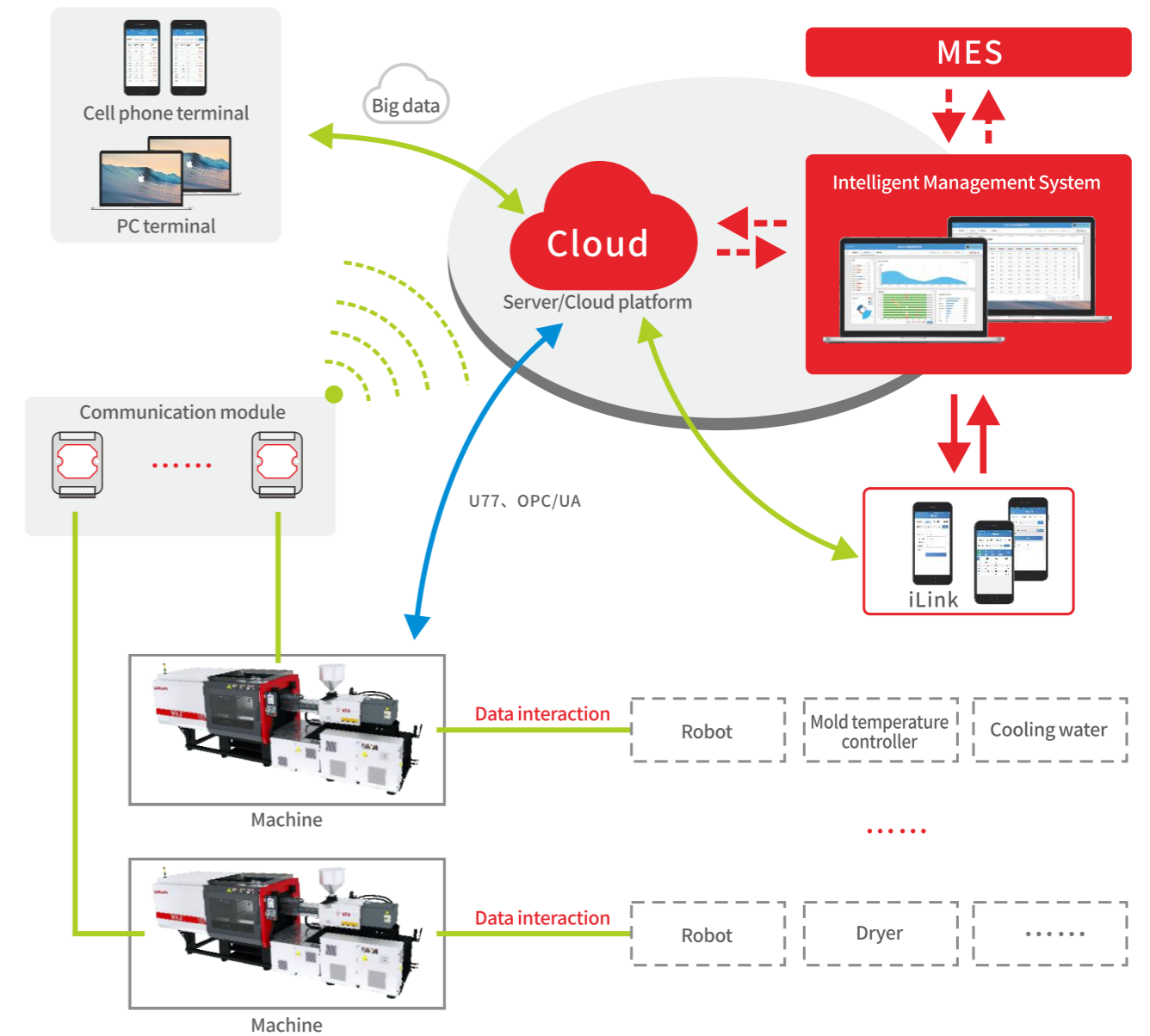
Equipped with OPC interface of intelligent Internet of Things management system, and open a new era of intelligent factory

- Highly automatic, intelligent, modern injection molding machine computer, contributes to the central data collection, analysis and backup. Meanwhile working with robot, mold temperature controller and other auxiliaries, to realize data interaction and full-line automation. It can form an Internet of things management solution on injection molding machine for customer; Friendly, simple operation software, is easy for users to master the machine production status at any time and place, reach the response quickly and timely, and ensure the highest level of production.
- Adopt EST/B&R controller, with large screen controller, friendly UI interface, better information transmission and optional industrial interface (U77, OPC, MES extra charge)
- With I/O input/output short-circuit protection

# -Computer Interaction

# Intelligent Networking Management System

extensible interface (optional)



MMI high-performance PLC, which obtains robot information, from the mold temperature controller, cooling water, machine accessories, etc. It performs data processing and communicates wirelessly with the network management system. In addition, by PC or cell phone the terminal can always indicate machine information, the process of parameters, operation status, fault situation and product analysis at a glance. Controlled by the computer, it aims to maximize work efficiency, a better product, planning and operation control, production efficiency and improvement. We also offer data exchange with MES terminal, which allows to automate all the production.

# Accurate

## 03

- The whole machine adopts high-performance hose, remove steel pipe welding, to prevent oil leakage;

- Injection speed-up function: using the latest servo system, highly improve response speed by 30-50ms;

System pressure improves to 17.5 Mpa, and the injection pressure and speed are greater.  
With One-button-acceleration function, the machine speed can be increased up to 15% under the previous configuration.

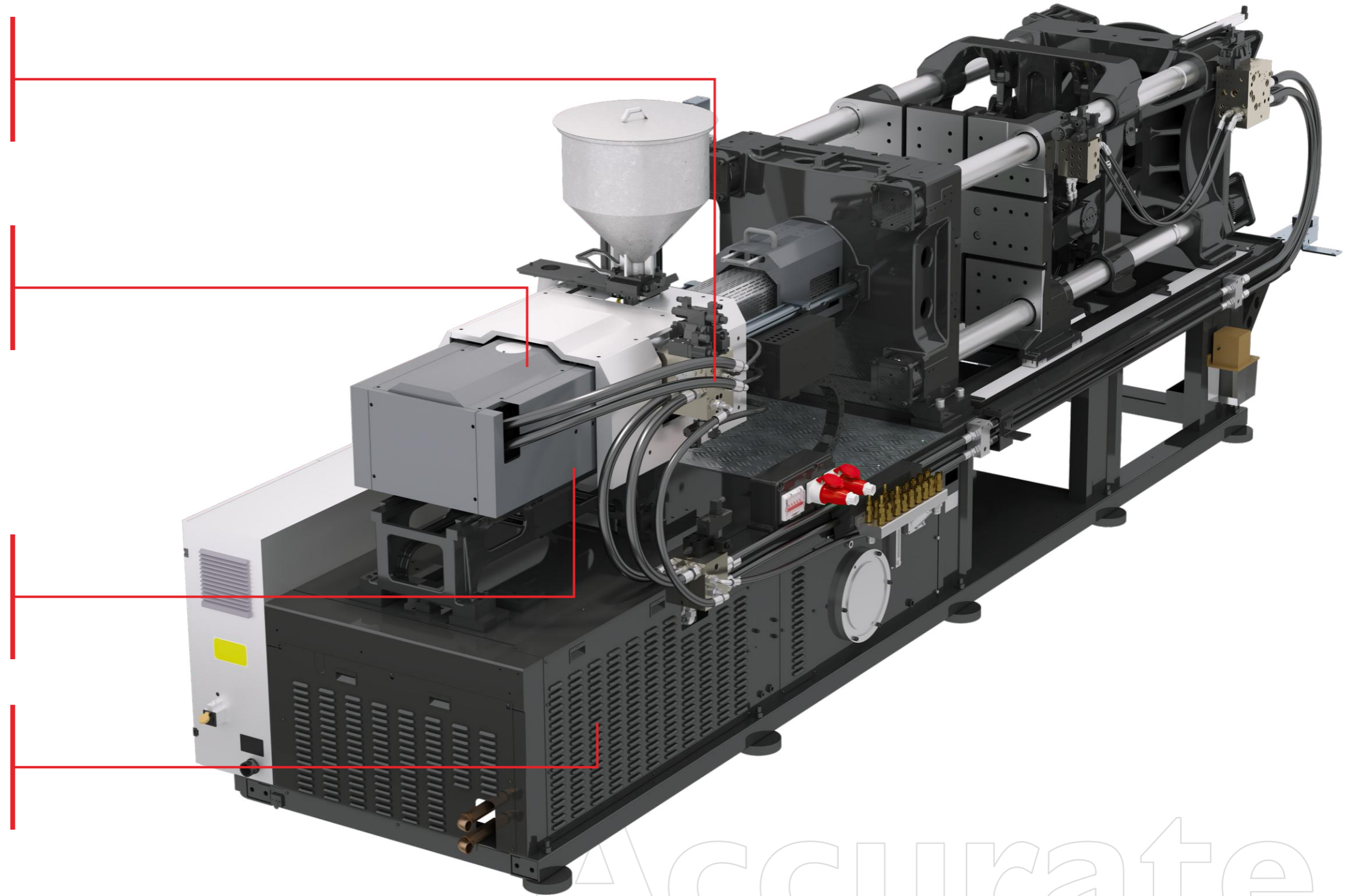
## 04

## 05

- Improve efficiency and extend servo motor life: oil-cooled type motor is used above the machine 530T. The heat dissipation effect is greatly improved, and the motor life is longer;

- New injection cylinder design makes the oil return resistance close to zero. Meanwhile the whole series of injection unit are standard with linear slide rail, effectively reduce the friction of the injection part, greatly improve the control precision and stability of the injection unit.

## 06



# Accurate

# Accurate



Accurate



## Accurate 07-08

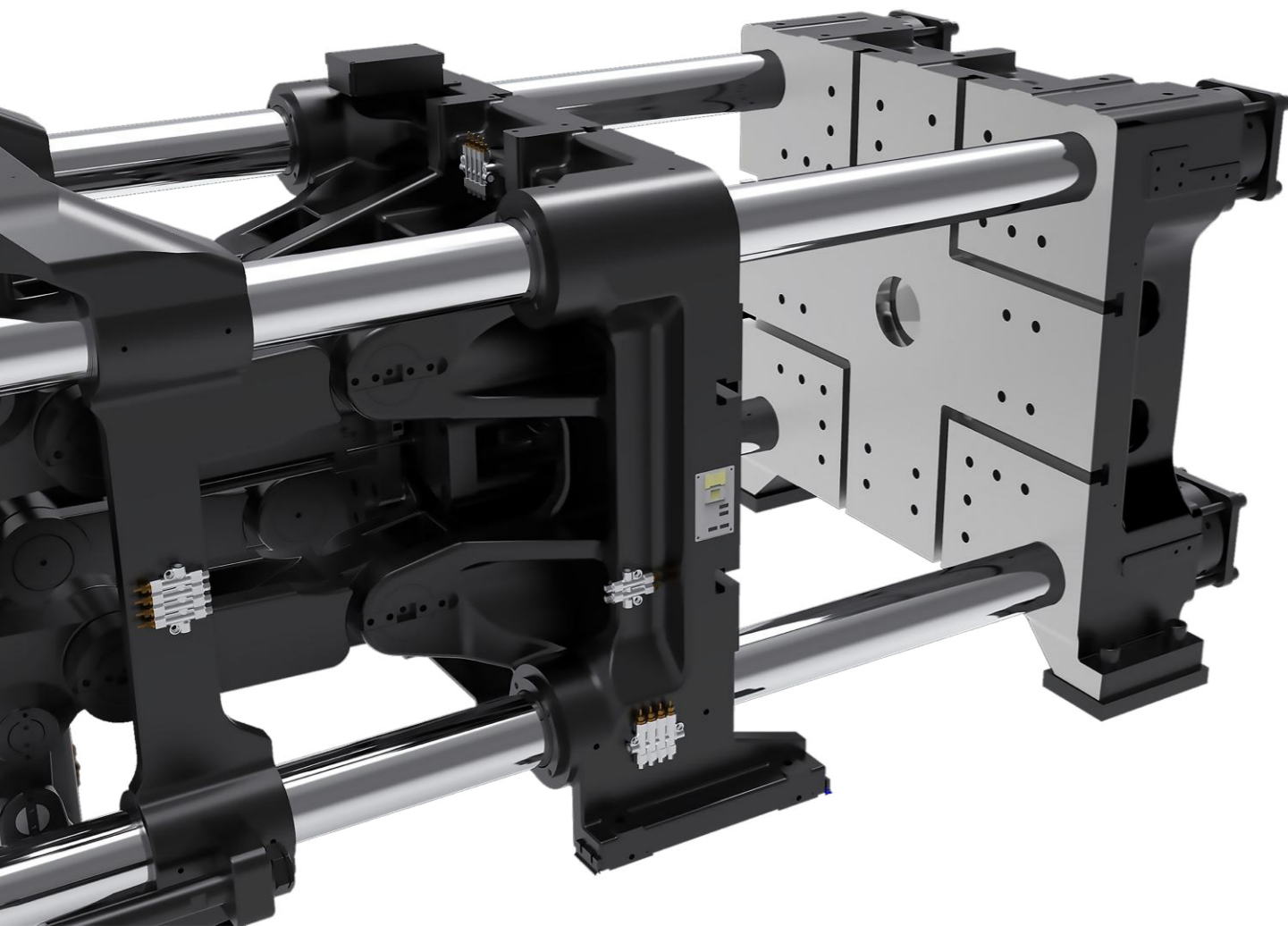
- From the plasticizing system designed in Germany, plasticizing efficiency is more than 20% above the other Chinese brands  
For ABS, PS, PP and other common plastic material, it is customized for a variety of complex process requirements.
- Enhance plasticizing structure, with more stable operation and longer life.

9. Plasticizing components from German design



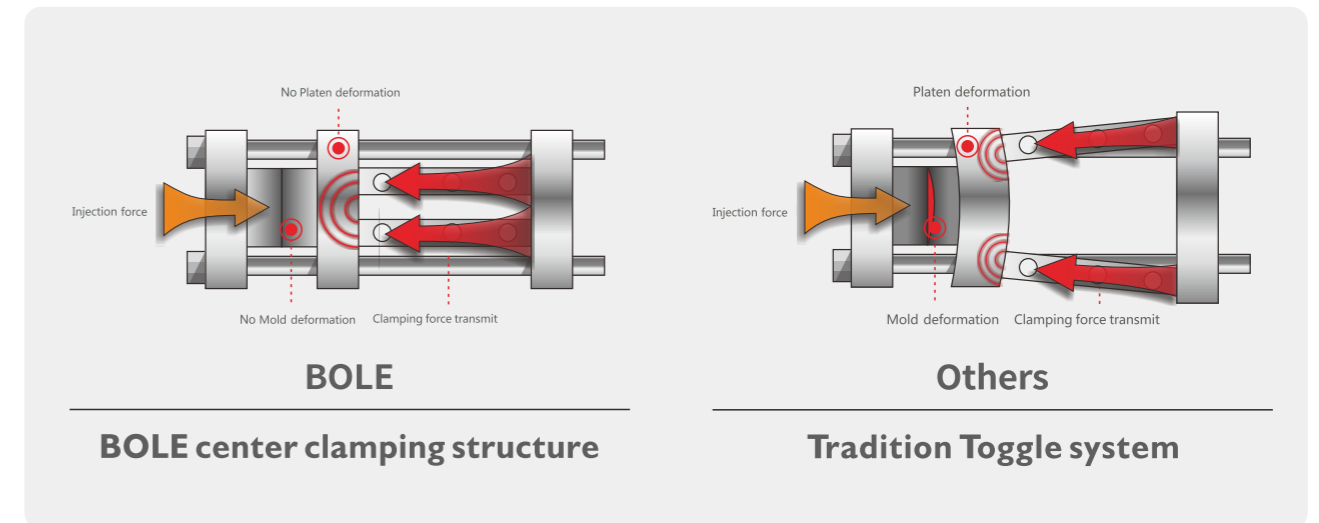
10. Plasticizing system from German design





- Improve rigidity (clamping part optimization, improve the rigidity, further extend the lifetime of the machine.
- The center hole of the stationary platen is reduced according to the new national industry standard of China, and the rigidity of the middle position is increased.
- With plasticizing unit designed from Germany, save plasticizing time, improve plasticizing efficiency.

## Toggle System Comparison



### 01 High clamping force efficiency

By sample testing, the clamping force utilization rate with Bole central clamping structure reaches 100%, while that of traditional toggle machine only reaches 80-85%.

### 02 Raw Material Saving

Compared with traditional structure, Bole central clamping structure can save 2%-5% of raw materials for more than 80% of molds.

### 03 High accuracy and less flash

AI intelligent control  
Positioning repeatability accuracy of mold opening and closing  $\pm 0.5\text{mm}$   
Product weight repetition accuracy  $\leq 0.3\%$   
Fewer flash than traditional structures

### 04 Protection to mold and platen

With the latest clamping structure of EKW, make uniform force on the platen with less deformation; Precise low pressure function for mold closing, proportional pressure control and equal stress platen structure technology, can protect the mold and extend the mold life.

### 05 High flexibility for mold range

The latest clamping structure of EKW, make uniform force on platen, reduce the deformation, to be suitable for larger mold size range and applicability.

### 06 Greater opening stroke

At the same tonnage model, central clamping structure of EKW provide mold opening stroke greater, to install large-dimension mold (especially deep cavity mold).



# EKW-ECO Hybrid Energy-saving IMM

Center clamping Toggle/Triple energy saving/Made by Bole

Promote the standardization of energy-saving industry  
for hydraulic injection moulding machines



## Green energy saving

ECO energy saving machine with Bole latest electric charging solution , for the same tonnage model ,the energy consumption of charging unit can save more than 35%, and the energy consumption of the whole machine can save more than 18% , approaching the consumption of electrical injection moulding machine.

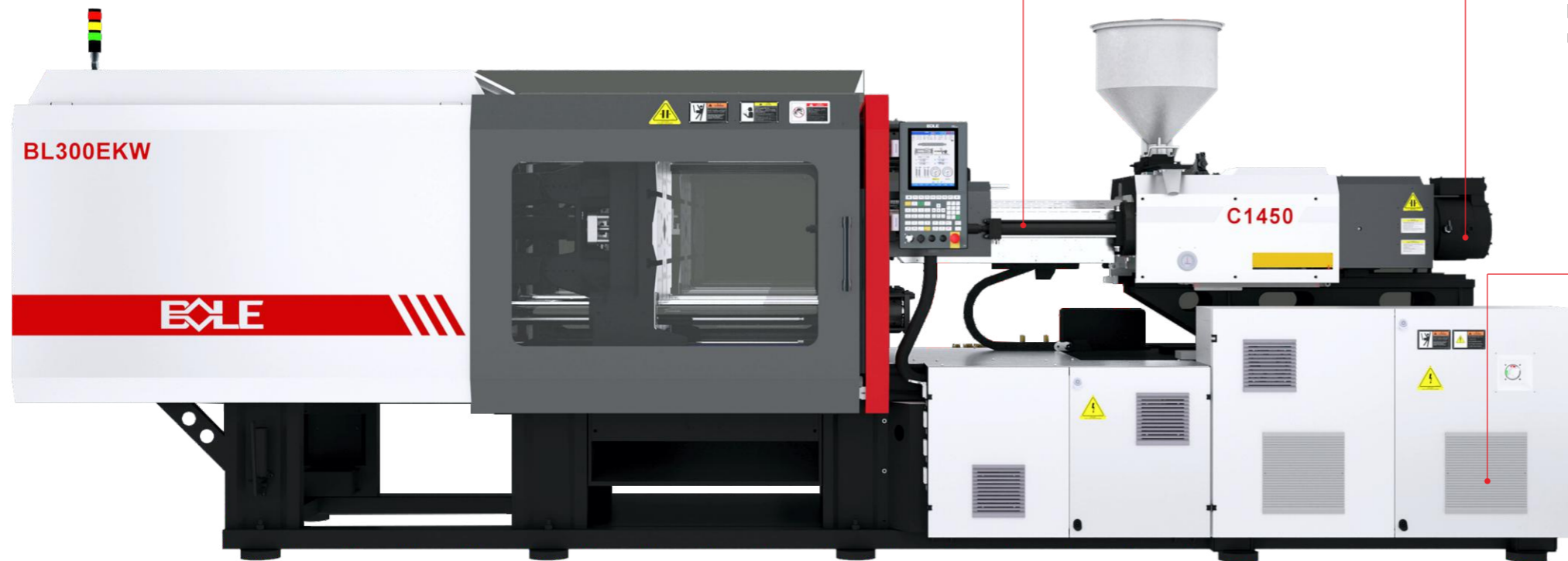
By sampling bole test, ECO energy saving machine with the latest servo driving system technology, with the same tonnage model and produce the same products, under the same condition, BOLE machine save 15% at least than the traditional servo energy saving machine

The whole of ECO energy saving machine can save at least 25% consumption compare with the traditional same tonnage and same screw diameter model.

Green

### EK-ECO energy-saving injection molding machine

Because injection molding system is running continuous, consume too much electricity, called "electrical tiger", reducing the electricity consumption of injection molding system already become technology development direction for each company, and also become the important job of energy saving and emission reduction for country and government, ECO series will be responsive of "green environment, energy saving and emission reduction" idea ,and try to achieve the lowest consumption for plastic machinery area.



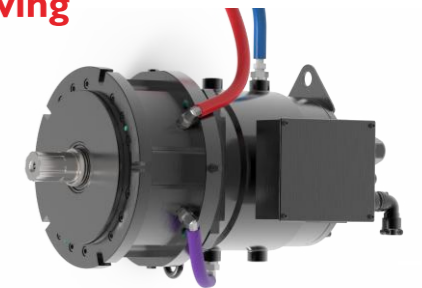
#### Energy saving ceramic heating

Configure energy saving series ceramic heating, compare with traditional heater, save more than 18%, energy saving is approaching the infrared heating, the advantage is that lower cost, long life (infrared quartz tube is easy to be damaged)



#### Electric charging energy saving

Configure planetary reduction in one oil cooling servo charging motor, lower noise, lower heating ,bigger torque, compact and perfect size, transit efficiency increase more than 25% compare with traditional hydraulic motor, achieve synchronize movement.

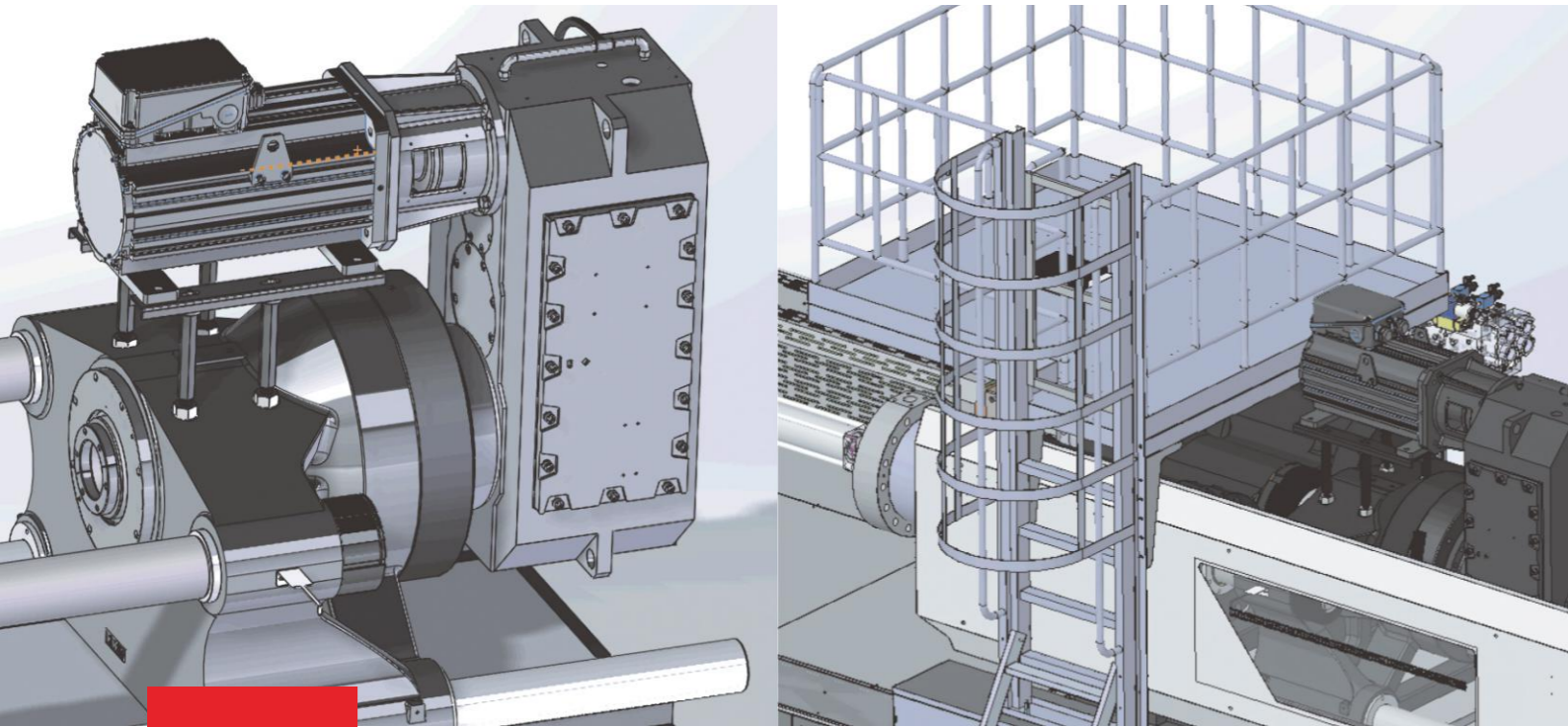


#### New series servo energy saving

New series motor + new oil pump, higher efficiency and more energy saving



# New Electric Charging System



- New ceramic energy saving heater heating is faster than common heater.
- New ceramic energy saving heater insulation is better, reduce the energy loss, more saving energy compare with common ceramic.
- New ceramic heater cooling speed is better than infrared energy saving heater, it is used different area widely.
- During constant temperature ,less temperature impact.



Electric charging solution	Old motor solution
Lower consumption, the higher direct transit efficiency, energy saving 18%~40%, reduce the electricity cost.	Higher consumption: lower hydraulic transit efficiency, higher electricity.
Simple structure: through motor reduction box running, whole machine structure design simple, enviroment is simple and tidy.	Complicated structure: through the hydraulic system driving, the whole machine structure design is complicated, enviroment is complicated.
Lower noise, optimize design of gear box, the lowest noise, without the ticktack of hydraulic motor sound.	Higher noise: charing time occupy more of cycle time, with higher speed and higher pressure, the noise of hydraulic system and noise of hydraulic motor will be superimposed.
Higher efficiency: hydraulic motor transit efficiency increase more than 21%, opening mould and charing simultaneously, save production time and higher efficiency.	Lower efficiency: through oil pressure system driving, higher electricity, lower efficiency.
Simple charging: servo driver motor achieve the speed closed loop, rotate spped wave is less, charging accurate increase, more stable.	Unstable speed: oil motor internal leakage will have a big difference according to loading and old temperature, cause charging speed is not stable.
Invest higher cost one -offs: according to whole machine saving 18% energy, after running 18 months continously, saving electrcity is equal to the invest cost one -offs, after 18 months, it will take benefit for customers.	Invest loweer cost one -offs: lower cost hydraulic motor, electricity cost is higher 18% when machine is running continously.

# EKW-ECO

## energy-saving servo injection molding machine

### BL100-1000EKW: Power comparison between electric glue motor and oil pump motor

Model	Screw Dia mm B type screw	Screw speed Using Hydraulic motor	Motor power KW	Electrical charging screw speed r/min Electric	Electrical charging power KW	Motor power reduction %	Comparison of advantages of Electrical charging
BL120EKW	40	210	15.3	247	9	40%	<p><b>Energy saving:</b> Compared with the traditional hydraulic motor, the transmission efficiency is higher, and the power of the drive motor is significantly reduced. The general melt part of the injection molding machine accounts for 40% - 60% of the total energy consumption of the machine, and the use of electric melt adhesive can save energy at least between 18% - 40%.</p> <p><b>Improve efficiency:</b> driven by Hefu motor, the glue melting speed is stable, and the independent glue melting motor is used to control the products with short cooling time, which can realize the synchronous action of material storage and mold opening.</p> <p><b>High precision and low noise:</b> the servo motor speed can be controlled in a closed loop, with stable material storage, low speed fluctuation, and higher material storage accuracy. The optimized design of the gearbox has extremely low noise, and there is no clicking sound of the piston when the hydraulic motor is working.</p>
BL250EKW	55	240	29.9	221	17	43%	
BL300EKW	60	210	29.9	220	21	30%	
BL400EKW	70	175	40.9	220	30	26%	
BL470EKW	75	164	50.7	210	42	17%	
BL600EKW	85	134	65	155	52	20%	
BL900EKW	100	169	101.4	155	52	48%	
BL1200EKW	110	122	101.4	130	65	35%	
BL1600EKW	140	111	142.3	125	125	12%	
BL2500EKW	190	63	182.5	80	167	9%	



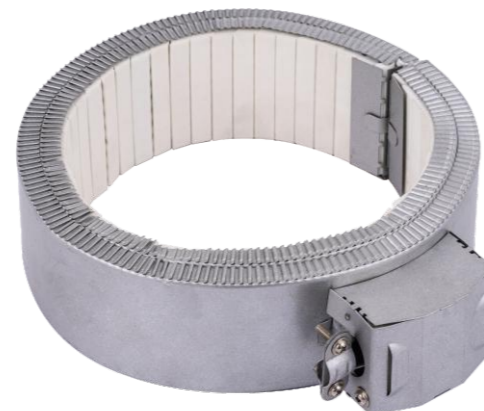
# New heating energy-saving - Ceramic heating ring

## Ceramic heating ring

At present, the commonly used heating methods of injection molding machine barrel include resistance heating (mica type and ceramic type), electromagnetic heating, infrared heating, etc. Due to the defects of electromagnetic heating module, such as its own heating and easy damage, electromagnetic heating still has defects in reliability, safety and installation convenience; On the one hand, due to the limited structure, the infrared heating ring is easy to interfere with the template and oil cylinder during installation, which is inconvenient to install, and the relative cost is high, and the adaptability to the production of various engineering plastic colors is poor.

Bole energy-saving injection molding machine adopts energy-saving new ceramic heating ring, which heats up faster and consumes less energy than traditional heating ring. It is close to the actual production of infrared heating chart. The melting of plastic mainly depends on screw shearing heat, and the energy consumption of heating part only accounts for about 12% of the overall energy consumption of the injection molding machine. In addition, for users, infrared heating costs are high, and maintenance and use costs are high. The energy consumption saved in normal production is not enough. Bole adopts energy-saving ceramic heating ring, which has been tested on site. Under the same production conditions, the energy consumption of the new energy-saving modified ceramic heating ring is about 18% lower than that of the ordinary heating ring, which is close to the infrared heating ring.

- The new ceramic energy-saving heating ring heats up faster than the ordinary heating ring;
- The new ceramic energy-saving heating ring has better thermal insulation effect, reduces heat loss, and saves electricity than ordinary ceramic heating chart:
- The cooling speed of the new ceramic heating ring is significantly faster than that of the infrared energy-saving heating ring, and the adaptability of production materials is wider;
- During the constant temperature process, the temperature shock is small.



## Comparative experiment between modified ceramic heating ring and ordinary ceramic heating ring

### 1. Product parameters

<b>Name</b>	Socket box
<b>Weight</b>	946g
<b>Material</b>	PC+ABS



### 2. Test machine parameters

<b>Model</b>	BL550EKS/C3700
<b>Clamping force</b>	550Ton
<b>system pressure</b>	17.5Mpa
<b>Heat power</b>	32.95kw

### 3. Test date

Test content		Original electric heating coil (common ceramic)	Modified heating (energy-saving)
Electrothermal start	Initial temperature (° C) Normal temperature	31/31/31/31/31	42/44/45/45/44
	Setting temperature	220/220/220/210/200	220/220/220/210/200
	Start time	14:02	13:10
	End time	14:35	13:37
	Time	33MIN	27MIN
	Time difference	6	
	Meter reading (starting value)	0.0	0.0
	Meter reading (ending value)	9.42	8.47
	Heating startup energy consumption (KWH)	9.42	8.47
	Power consumption difference (KWH)	0.95	
Surface temperature of electric heating coil (° C)	87	66	
Production	Start time	14:49	14:00
	End time	16:20	15:30
	Time	1:31'	1:30'
	Product Quantity	75	75
	Meter reading (starting value)	9.78	8.85
	Meter reading (ending value)	10.72	9.61
	Electric heating consumption	0.94	0.76
Power consumption difference (KWH)	0.18		
Comparison	1. The modified heating ring heats up faster than the original heating ring, saving about 18% time		
	2. The heating energy consumption of the modified heating coil is lower than that of the original heating coil, and the energy consumption of cold heating is about 10%		
	3. The energy consumption of the modified heating coil is about 19% lower than that of the original heating coil in the production process		

# Servo energy-saving

Servo Energy-saving



## New servo system

- Different servo systems have different energy consumption;
- Bole adopts high-performance ultra-low inertia motor, which can save more energy than traditional servo motor; According to the on-site test of models with the same tonnage and similar parameters, Bole Energy-saving Injection Molding Machine is better than the common one about 15%.



## Technical Data

DESCRIPTION	UNIT	BL100EKW/C340			BL120EKW/C470		
International specification		C340			C470		
Screw specification		A	B	C	A	B	C
Screw diameter	mm	32	36	40	36	40	45
Screw L/D ratio	L/D	23.0	20.4	18.4	23.0	20.7	18.4
Theoretical injection capacity	cm <sup>3</sup>	145	183	226	203	251	318
Shot weight (PS)	g	133	168	208	187	231	292
	oz	4.7	6.0	7.3	6.6	8.2	10.3
Injection rate into Air	cm <sup>3</sup> /s	96	122	150	127	156	198
	g/s	87	111	137	115	142	180
Injection pressure	Mpa	239	189	153	230	186	147
Theoretical plasticizing speed	g/s (PS)	12	16	21	16	21	30
Injection stroke	mm	180			200		
Max. injection speed	mm/s	119			125		
Screw speed	r/min	245			245		
Sys. Pressure	MPa	17.5			17.5		
Total motor power	kW	8.9~13.4			13.4~15.3		
Power of electric charging motor (ECO only)	kW	8.9			8.9		
Total motor power(During ECO synchronization)	kW	17.8~22.3			22.3~24.2		
Heater power	kW	7			8.7		
Number of temp. control zones		3+1			3+1		
Clamping force	kN	1000			1200		
Opening stroke	mm	335			380		
Space between tie bar	mmxmm	405x325			455x355		
Min. mould height	mm	150			160		
Max. mould height	mm	390			450		
Max. daylight	mm	725			830		
Ejector stroke	mm	110			120		
Ejector force forward	kN	34			34		
Ejector force backward	kN	22			22		
Number of ejector bar	PC	5			5		
Hopper capacity	kg	25			25		
Oil tank capacity	L	105			125		
Machine dimensions (L×W×H)	mXmXm	4.2x1.3x2.1			4.9x1.5x2		
Machine weight	Ton	2.5			3.6		

BL160EKW/C630			BL200EKW/C910			BL250EKW/C1180		
C630			C910			C1180		
A	B	C	A	B	C	A	B	C
40	45	50	45	50	55	50	55	60
23.0	20.4	18.4	23.0	20.7	18.8	23.0	20.9	19.2
283	358	442	397	491	594	530	641	763
260	329	406	366	451	546	487	590	702
9.2	11.6	14.4	12.9	15.9	19.3	17.2	20.8	24.8
163	207	255	210	259	313	258	313	372
149	188	232	191	236	285	235	285	339
223	176	143	219	177	147	226	187	157
19	27	35	27	35	46	35	46	58
225			250			270		
130			132			132		
220			220			220		
17.5			17.5			17.5		
16.4~17.1			20.5~22.4			26.7~29.9		
17			17			17		
33.4~34.1			37.5~39.4			43.7~46.9		
13.65			13.95			14.85		
3+1			3+1			4+1		
1600			2000			2500		
450			500			570		
505x405			555x455			605x505		
180			200			220		
510			550			600		
960			1050			1170		
140			150			150		
49			49			67		
37			37			39		
5			5			9		
25			50			50		
165			205			270		
5.2x1.6x2.1			5.3x1.6x2.3			6x1.7x2.4		
4.1			5.2			6.2		

## Technical Data

DESCRIPTION	UNIT	BL300EKW/C1450			BL360EKW/C2080		
International specification		C1450			C2080		
Screw specification		A	B	C	A	B	C
Screw diameter	mm	55	60	65	60	65	75
Screw L/D ratio	L/D	23.0	21.1	19.5	23.0	21.2	18.4
Theoretical injection capacity	cm <sup>3</sup>	689	820	962	918	1078	1435
Shot weight (PS)	g	634	754	885	845	992	1320
	oz	22.4	26.6	31.3	29.9	35.0	46.7
Injection rate into Air	cm <sup>3</sup> /s	276	328	385	322	378	503
	g/s	251	299	351	293	344	458
Injection pressure	Mpa	211	178	151	226	193	145
Theoretical plasticizing speed	g/s (PS)	44	55	69	55	69	101
Injection stroke	mm	290			325		
Max. injection speed	mm/s	116			114		
Screw speed	r/min	210			210		
Sys. Pressure	MPa	17.5			17.5		
Total motor power	kW	26.7~29.9			37~40.9		
Power of electric charging motor (ECO only)	kW	21			30		
Total motor power(During ECO synchronization)	kW	47.7~50.9			67~70.9		
Heater power	kW	20			24.3		
Number of temp. control zones		4+1			4+1		
Clamping force	kN	3000			3600		
Opening stroke	mm	610			660		
Space between tie bar	mmxmm	705x575			755x605		
Min. mould height	mm	250			250		
Max. mould height	mm	660			730		
Max. daylight	mm	1270			1390		
Ejector stroke	mm	190			190		
Ejector force forward	kN	67			123		
Ejector force backward	kN	39			82		
Number of ejector bar	PC	13			13		
Hopper capacity	kg	50			50		
Oil tank capacity	L	275			340		
Machine dimensions (L×W×H)	mXmXm	6.5x1.8x2.3			7x1.9x2.3		
Machine weight	Ton	8.2			9.7		

BL400EKW/C2500			BL470EKW/C3200			BL530EKW/C4500		
C2500			C3200			C4500		
A	B	C	A	B	C	A	B	C
65	70	75	70	75	85	80	85	95
23.0	21.4	19.9	23.0	21.5	18.9	23.0	21.6	19.4
1194	1385	1590	1500	1722	2212	2211	2496	3117
1098	1274	1462	1380	1584	2035	2034	2296	2868
38.8	45.0	51.7	48.8	56.0	71.9	71.9	81.1	101.3
352	408	469	430	493	634	579	653	816
320	372	427	391	449	576	526	594	742
207	179	156	212	185	144	202	179	143
69	78	95	68	82	104	82	96	130
360			390			440		
106			112			115		
210			170			148		
17.5			17.5			17.5		
37~40.9			47.2~50.7			60.5~65		
30			42			52		
67~70.9			89.2~92.7			112.5~117		
25.9			28.25			31.4		
4+1			4+1			5+1		
4000			4700			5300		
710			800			900		
805x625			855x655			905x705		
270			330			330		
730			810			880		
1440			1610			1780		
190			210			220		
123			123			123		
82			82			82		
13			13			21		
50			50			100		
340			380			450		
7x1.8x2.5			7.7x1.9x2.6			8.3x2.1x2.9		
12.2			14.5			19.5		



## Technical Data

DESCRIPTION	UNIT	BL600EKW/C4500			BL700EKW/C5900		
International specification		C4500			C5900		
Screw specification		A	B	C	A	B	C
Screw diameter	mm	80	85	95	80	90	100
Screw L/D ratio	L/D	23.0	21.6	19.4	23.6	21.0	18.9
Theoretical injection capacity	cm <sup>3</sup>	2211	2496	3117	2512	3179	3925
Shot weight (PS)	g	2034	2296	2868	2311	2925	3611
	oz	71.9	81.1	101.3	81.7	103.4	127.6
Injection rate into Air	cm <sup>3</sup> /s	579	653	816	618	783	966
	g/s	526	594	742	563	712	879
Injection pressure	Mpa	202	179	143	236	186	151
Theoretical plasticizing speed	g/s (PS)	83	98	132	81	118	160
Injection stroke	mm	440			500		
Max. injection speed	mm/s	115			123		
Screw speed	r/min	150			150		
Sys. Pressure	MPa	17.5			17.5		
Total motor power	kW	60.5~65			75.1~81.8		
Power of electric charging motor (ECO only)	kW	52			52		
Total motor power(During ECO synchronization)	kW	112.5~117			127.1~133.8		
Heater power	kW	31.4			40.95		
Number of temp. control zones		5+1			5+1		
Clamping force	kN	6000			7000		
Opening stroke	mm	940			1020		
Space between tie bar	mmxmm	955x755			1010x805		
Min. mould height	mm	380			400		
Max. mould height	mm	950			980		
Max. daylight	mm	1890			2000		
Ejector stroke	mm	220			260		
Ejector force forward	kN	123			166		
Ejector force backward	kN	82			117		
Number of ejector bar	PC	21			21		
Hopper capacity	kg	100			100		
Oil tank capacity	L	450			650		
Machine dimensions (L×W×H)	mXmXm	9.1x2.2x2.9			9.6x2.3x3		
Machine weight	Ton	22			25		

BL800EKW/C8000			BL900EKW/C8000			BL1000EKW/C10300		
C8000			C8000			C10300		
A	B	C	A	B	C	A	B	C
90	100	110	90	100	110	100	110	120
23.0	20.7	18.8	23.0	20.7	18.8	23.0	20.9	19.2
3497	4318	5224	3497	4318	5224	4710	5699	6782
3217	3972	4806	3217	3972	4806	4333	5243	6240
113.7	140.4	169.8	113.7	140.4	169.8	153.1	185.3	220.5
793	979	1185	793	979	1185	830	1004	1195
722	891	1078	722	891	1078	755	914	1087
230	186	154	230	186	154	220	182	153
118	160	207	118	160	207	136	176	211
550			550			600		
125			125			106		
150			150			130		
17.5			17.5			17.5		
92.6~101.4			92.6~101.4			92.6~101.4		
52			52			65		
144.6~153.4			144.6~153.4			157.6~166.4		
45.8			45.8			58.9		
5+1			5+1			6+1		
8000			9000			10000		
1080			1160			1250		
1060x860			1110x910			1210x960		
450			450			500		
1000			1100			1200		
2080			2260			2450		
280			300			300		
166			232			248		
117			132			165		
21			21			21		
100			100			200		
690			690			920		
10.4x2.5x3.1			10.8x2.6x3.1			10.9x2.9x4.2		
30			38			45		

## Technical Data

DESCRIPTION	UNIT	BL1200EKW/C10300			BL1300EKW/C13000		
International specification		C10300			C13000		
Screw specification		A	B	C	A	B	C
Screw diameter	mm	100	110	120	110	120	130
Screw L/D ratio	L/D	23.0	20.9	19.2	22.9	21.0	19.4
Theoretical injection capacity	cm <sup>3</sup>	4710	5699	6782	6174	7348	8623
Shot weight (PS)	g	4333	5243	6240	5680	6760	7933
	oz	153.1	185.3	220.5	200.7	238.9	280.3
Injection rate into Air	cm <sup>3</sup> /s	830	1004	1195	1104	1313	1541
	g/s	755	914	1087	1004	1195	1403
Injection pressure	Mpa	220	182	153	211	178	151
Theoretical plasticizing speed	g/s (PS)	145	188	224	180	216	262
Injection stroke	mm	600			650		
Max. injection speed	mm/s	106			116		
Screw speed	r/min	130			125		
Sys. Pressure	MPa	17.5			17.5		
Total motor power	kW	92.6~101.4			117.5~121		
Power of electric charging motor (ECO only)	kW	65			125		
Total motor power(During ECO synchronization)	kW	157.6~166.4			242.5~246		
Heater power	kW	58.9			69		
Number of temp. control zones		6+1			6+1		
Clamping force	kN	12000			13000		
Opening stroke	mm	1350			1410		
Space between tie bar	mmxmm	1310x1010			1360x1060		
Min. mould height	mm	550			600		
Max. mould height	mm	1260			1300		
Max. daylight	mm	2610			2710		
Ejector stroke	mm	350			350		
Ejector force forward	kN	248			248		
Ejector force backward	kN	165			165		
Number of ejector bar	PC	21			29		
Hopper capacity	kg	200			200		
Oil tank capacity	L	920			1100		
Machine dimensions (L×W×H)	mXmXm	11.4x3x4.2			12.3x3.3x4.1		
Machine weight	Ton	52			60		

BL1400EKW/C13000			BL1600EKW/C17100			BL1850EKW/C18300		
C13000			C17100			C18300		
A	B	C	A	B	C	A	B	C
110	120	130	130	140	150	130	140	150
22.9	21.0	19.4	22.6	21.0	19.6	22.6	21.0	19.6
6174	7348	8623	9021	10462	12011	9618	11155	12805
5680	6760	7933	8300	9625	11050	8849	10262	11781
200.7	238.9	280.3	293.3	340.1	390.4	312.7	362.6	416.3
1104	1313	1541	1378	1598	1834	1378	1598	1834
1004	1195	1403	1254	1454	1669	1254	1454	1669
211	178	151	191	164	143	191	164	143
180	216	262	203	244	293	203	244	293
650			680			725		
116			104			104		
125			100			100		
17.5			17.5			17.5		
117.5~121			140.1~142.3			140.1~142.3		
125			125			125		
242.5~246			265.1~267.3			265.1~267.3		
69			87.8			87.8		
6+1			6+1			6+2		
14000			16000			18500		
1530			1650			1700		
1460x1160			1560x1220			1660x1310		
700			700			780		
1400			1500			1600		
2930			3150			3300		
350			400			400		
248			363			363		
165			280			280		
29			29			29		
200			200			200		
1100			1160			1160		
12.3x3.3x4.1			13.4x3.4x4.3			14.9x3.9x4.5		
67			90			105		

## Technical Data

DESCRIPTION	UNIT	BL1850EKW/C25000		BL2100EKW/C25000	
International specification		C25000		C25000	
Screw specification		A	B	A	B
Screw diameter	mm	140	160	140	160
Screw L/D ratio	L/D	24.0	21.0	24.0	21.0
Theoretical injection capacity	cm <sup>3</sup>	14155	18488	14155	18488
Shot weight (PS)	g	13023	17009	13023	17009
	oz	460.2	601.0	460.2	601.0
Injection rate into Air	cm <sup>3</sup> /s	1489	1945	1489	1945
	g/s	1355	1770	1355	1770
Injection pressure	Mpa	176	135	176	135
Theoretical plasticizing speed	g/s (PS)	195	303	195	303
Injection stroke	mm	920		920	
Max. injection speed	mm/s	97		97	
Screw speed	r/min	100		100	
Sys. Pressure	MPa	17.5		17.5	
Total motor power	kW	140.1~142.3		140.1~142.3	
Power of electric charging motor (ECO only)	kW	167		167	
Total motor power(During ECO synchronization)	kW	307.1~309.3		307.1~309.3	
Heater power	kW	80		80	
Number of temp. control zones		6+2		6+2	
Clamping force	kN	18500		21000	
Opening stroke	mm	1700		1850	
Space between tie bar	mmxmm	1660x1310		1760 ×1360	
Min. mould height	mm	780		780	
Max. mould height	mm	1600		1700	
Max. daylight	mm	3300		3550	
Ejector stroke	mm	400		450	
Ejector force forward	kN	363		465	
Ejector force backward	kN	280		365	
Number of ejector bar	PC	29		33	
Hopper capacity	kg	200		400	
Oil tank capacity	L	1950		1950	
Machine dimensions (L×W×H)	mXmXm	15.8x3.9x4.6		16x4.1x4.6	
Machine weight	Ton	110		112	

BL2100EKW/C36000		BL2100EKW/C57000		BL2500EKW/C57000		BL2500EKW/C72000	
C36000		C57000		C57000		C72000	
A	B	A	B	A	B	A	B
160	180	190	210	190	210	200	220
23.6	21.0	23.0	21.0	23.0	21.0	23.0	21.0
22508	28486	36840	45004	36840	45004	43960	53192
20707	26207	33893	41404	33893	41404	40443	48936
731.7	926.0	1197.6	1463.0	1197.6	1463.0	1429.1	1729.2
2048	2592	2290	2797	2290	2797	2176	2633
1864	2359	2083	2545	2083	2545	1980	2396
158	125	153	125	153	125	161	133
304	368	438	560	438	560	383	485
1120		1300		1300		1400	
102		81		81		69	
80		80		80		63	
17.5		17.5		17.5		17.5	
164.7~171.7		181.5~182.5		181.5~182.5		181.5~182.5	
209		209		209		314	
373.7~380.7		390.5~391.5		390.5~391.5		495.5~496.5	
118.5		191.5		191.5		222.8	
7+1		8+1		8+1		8+1	
21000				25000			
1850				2000			
1760 ×1360				1860x1460			
780				800			
1700				1800			
3550				3800			
450				500			
465				465.0			
365				365			
33				33			
400				400			
1970		1320		1320		1320	
16.6x3.7x4.2		18.1x4.1x4.6		18.6x3.7x4.5		18.6x4.3x4.8	
115		140		140		170	

## Technical Data

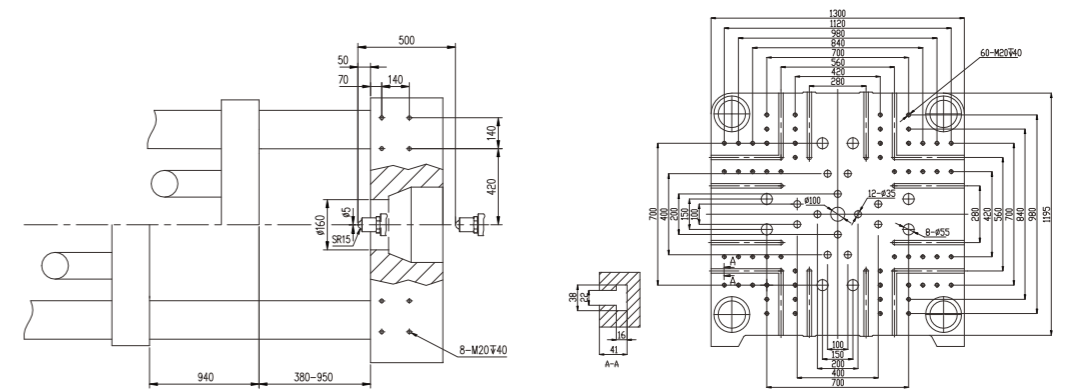
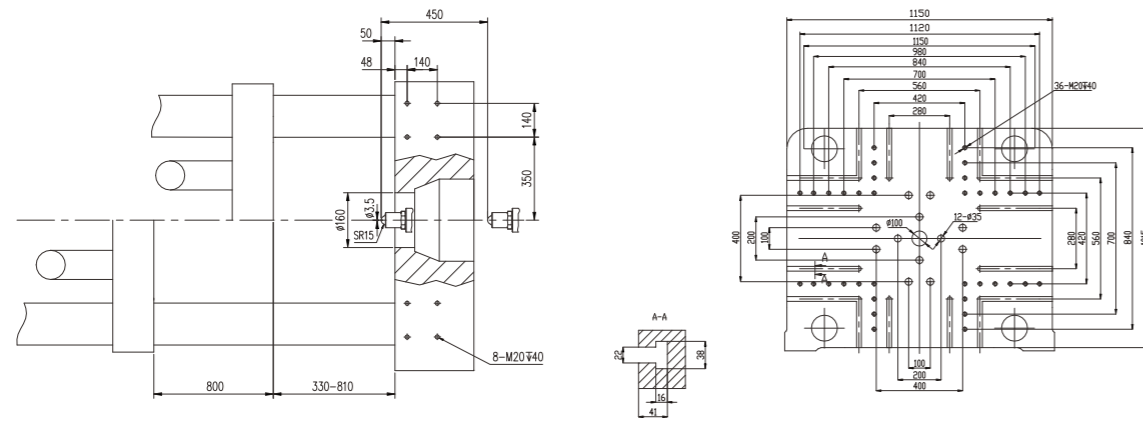
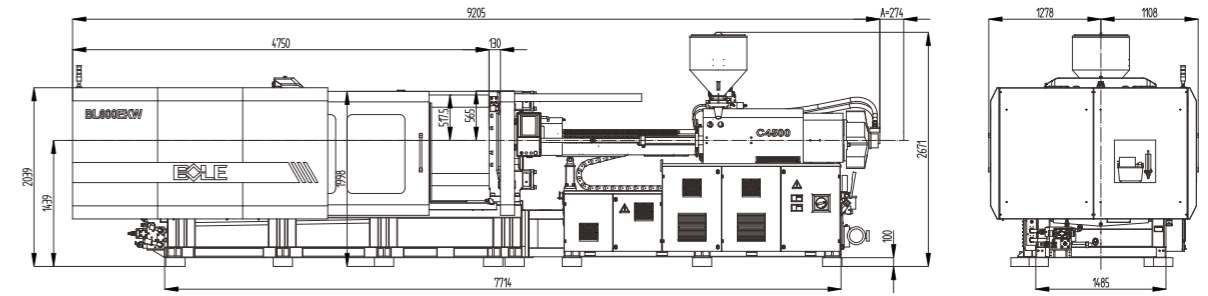
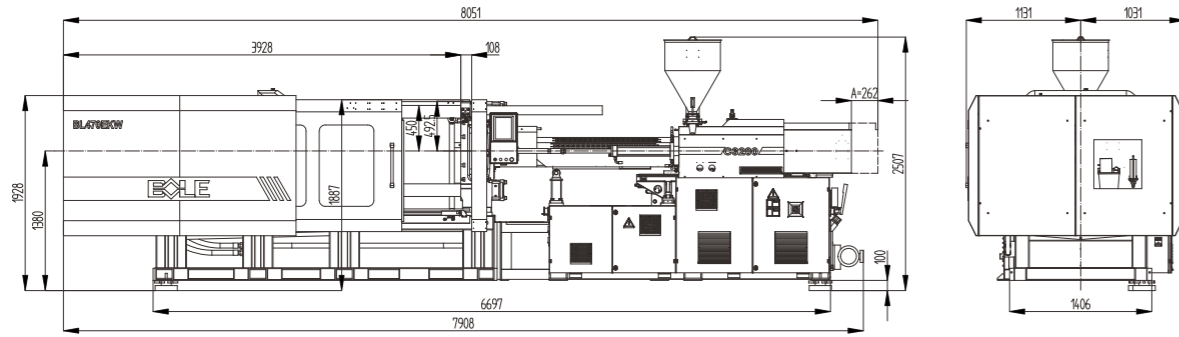
DESCRIPTION	UNIT	BL2800EKW/C72000		BL2800EKW/C88000	
International specification		C72000		C88000	
Screw specification		A	B	A	B
Screw diameter	mm	200	220	220	240
Screw L/D ratio	L/D	23.0	21.0	23.0	20.5
Theoretical injection capacity	cm <sup>3</sup>	43960	53192	56991	67824
Shot weight (PS)	g	40443	48936	52432	62398
	oz	1429.1	1729.2	1852.7	2204.9
Injection rate into Air	cm <sup>3</sup> /s	2176	2633	2368	2819
	g/s	1980	2396	2155	2565
Injection pressure	Mpa	161	133	154	129
Theoretical plasticizing speed	g/s (PS)	383	485	481	626
Injection stroke	mm	1400		1500	
Max. injection speed	mm/s	69		62	
Screw speed	r/min	63		63	
Sys. Pressure	MPa	17.5		17.5	
Total motor power	kW	181.5~182.5		185.2~202.8	
Power of electric charging motor (ECO only)	kW	314		314	
Total motor power(During ECO synchronization)	kW	495.5~496.5		499.2~516.8	
Heater power	kW	222.8		233	
Number of temp. control zones		8+1		8+1	
Clamping force	kN	28000			
Opening stroke	mm	2100			
Space between tie bar	mmxmm	1920x1720			
Min. mould height	mm	850			
Max. mould height	mm	1900			
Max. daylight	mm	4000			
Ejector stroke	mm	500			
Ejector force forward	kN	465			
Ejector force backward	kN	365			
Number of ejector bar	PC	33			
Hopper capacity	kg	400			
Oil tank capacity	L	1320		2500	
Machine dimensions (L×W×H)	mXmXm	19.1x4.5x4.9		20.1x4.5x5	
Machine weight	Ton	190		205	

BL3300EKW/C88000		BL3300EKW/C110000		BL4000EKW/C110000		BL5500EKW/C110000	
C88000		C110000		C110000		C110000	
A	B	A	B	A	B	A	B
220	240	240	260	240	260	250	270
23.0	20.5	23.0	21.0	23.0	21.0	23.0	21.0
56991	67824	74606	87559	74606	87559	80953	94424
52432	62398	68638	80554	68638	80554	74477	86870
1852.7	2204.9	2425.4	2846.4	2425.4	2846.4	2631.7	3069.6
2368	2819	3137	3682	3137	3682	3404	3971
2155	2565	2855	3351	2855	3351	3098	3613
154	129	149	127	149	127	137	118
481	626	626	764	626	764	680	825
1500		1650		1650		1650	
62		69		69		69	
63		63		63		63	
17.5		17.5		17.5		17.5	
185.2~202.8		235~242		235~242		235~242	
314		314		314		314	
499.2~516.8		549~556		549~556		549~556	
233		233		233		233	
8+1		8+1		8+1		8+1	
33000				40000		55000	
2200				2350		2350	
2110x1910				2420x2220		2420x2220	
950				1100		1100	
2000				2100		2100	
4200				4450		4450	
550				600		600	
618				618		618	
483				483		483	
25				25		25	
400				400		400	
2500		3000		3000		3000	
20.4x 5x5.1		21.2x5x5.1		22.5x5.3x5.1		23x5.3x5.1	
255		265		320		350	





# Platen Dimensions & Machine Dimensions

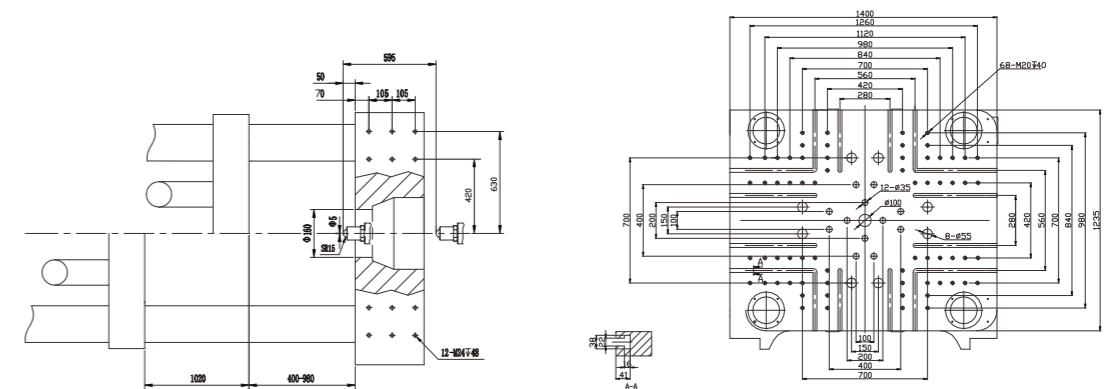
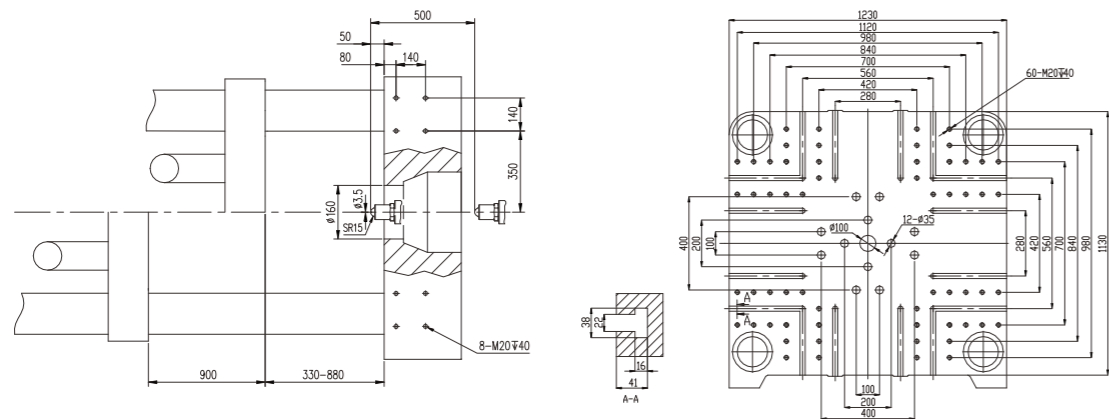
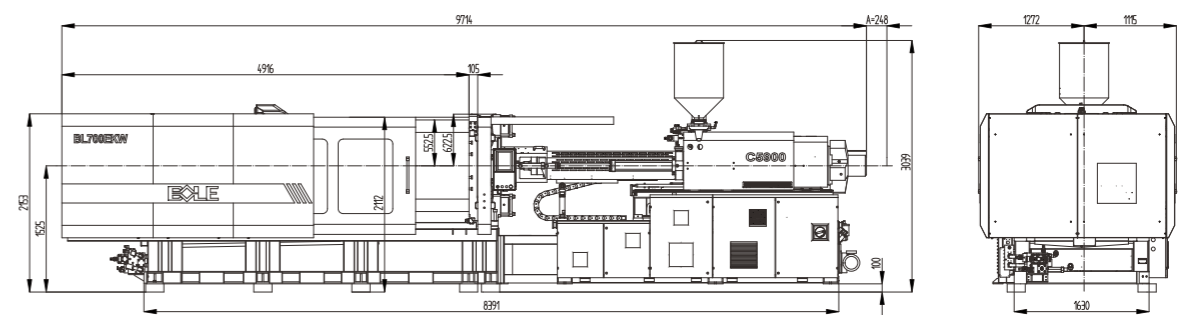
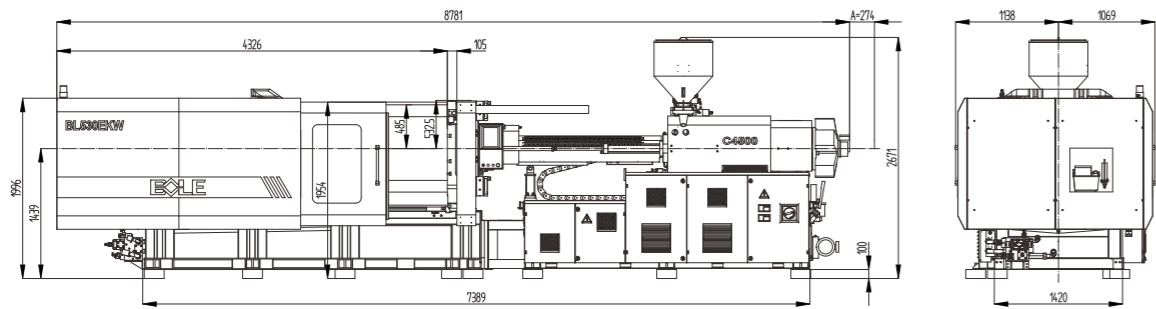


**BL470EKW**

Note: A indicates the addition of electric charging to increase the size

**BL600EKW**

Note: A indicates the addition of electric charging to increase the size



**BL530EKW**

Note: A indicates the addition of electric charging to increase the size

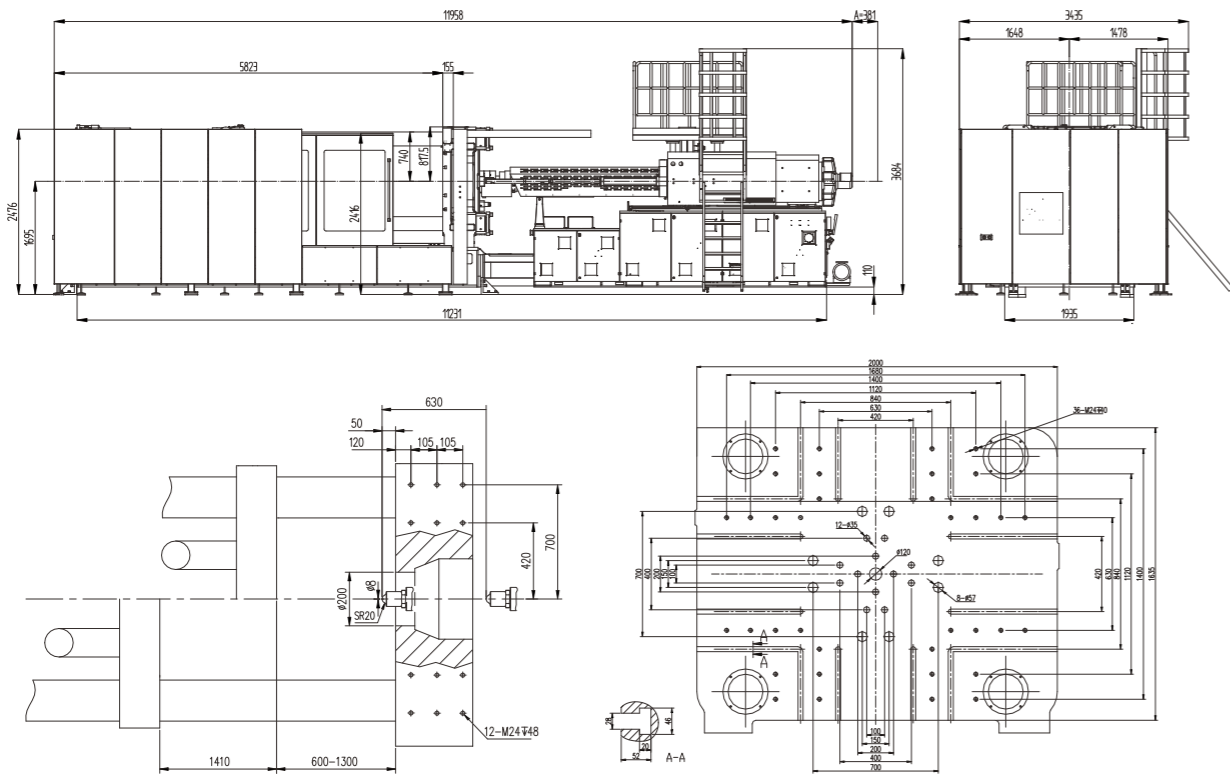
**BL700EKW**

Note: A indicates the addition of electric charging to increase the size



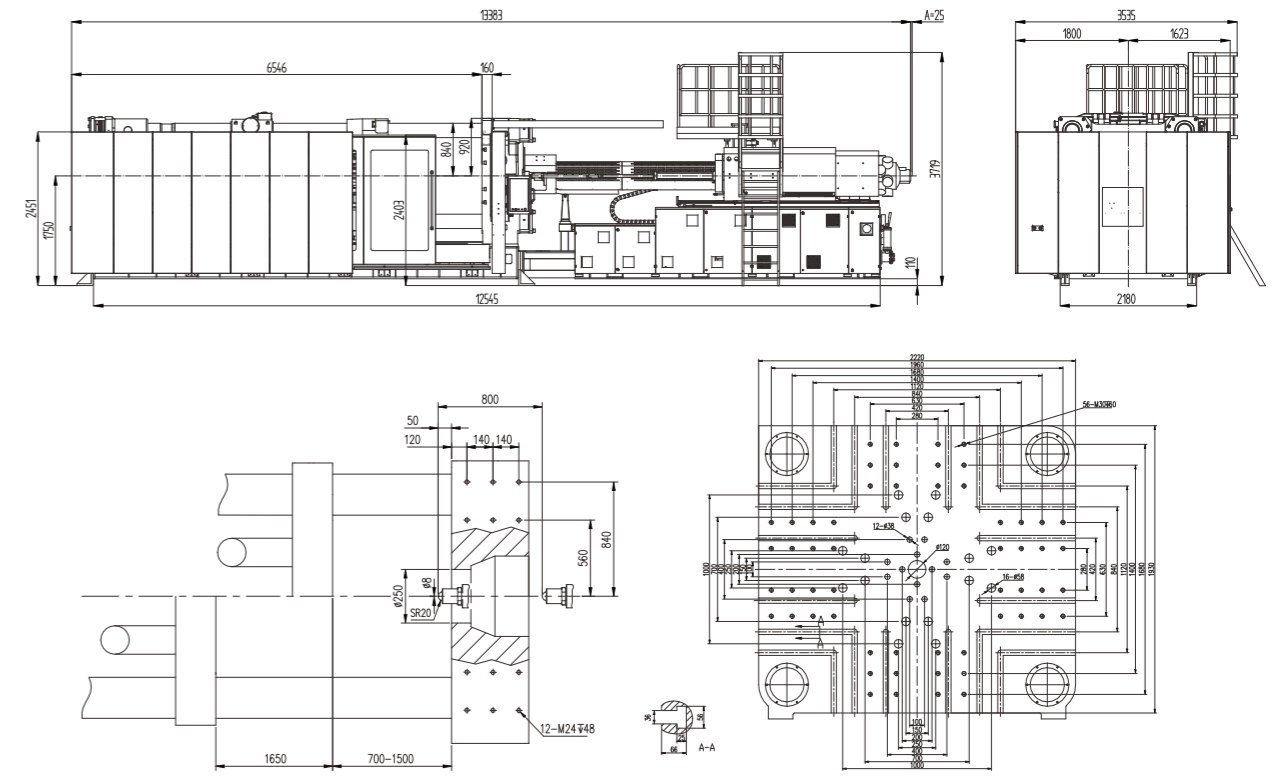


# Platen Dimensions & Machine Dimensions



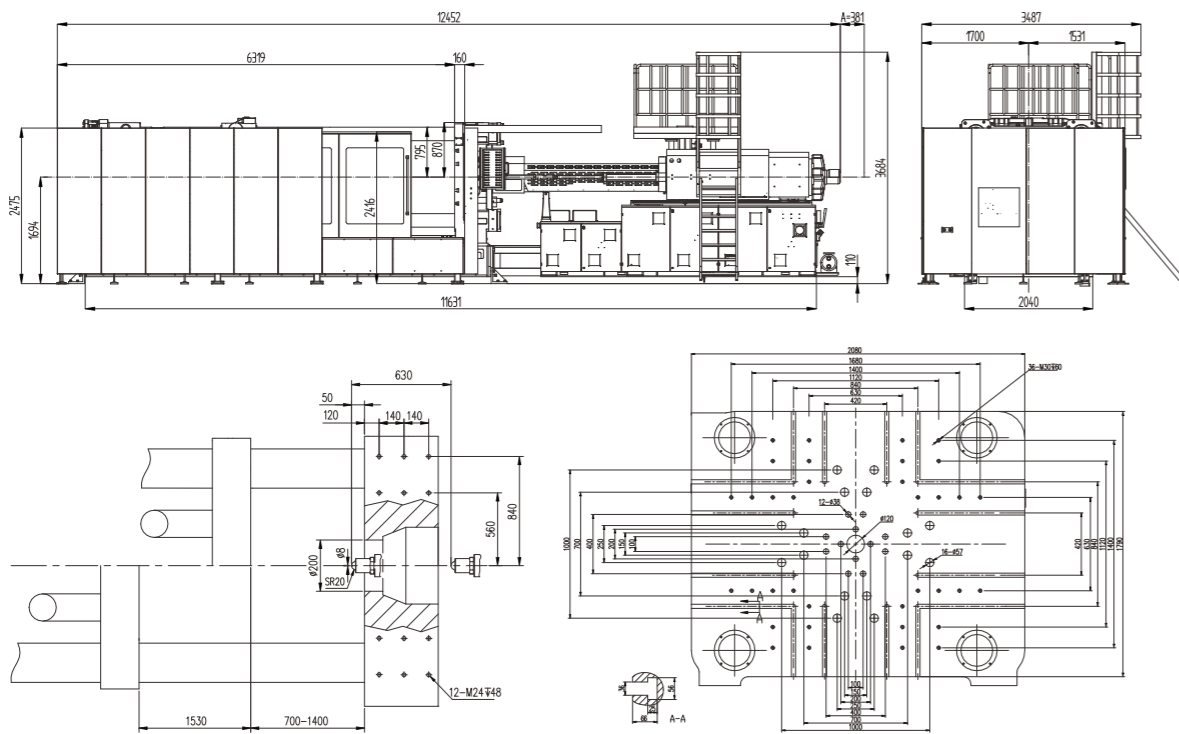
**BL1300EKW**

Note: A indicates the addition of electric charging to increase the size



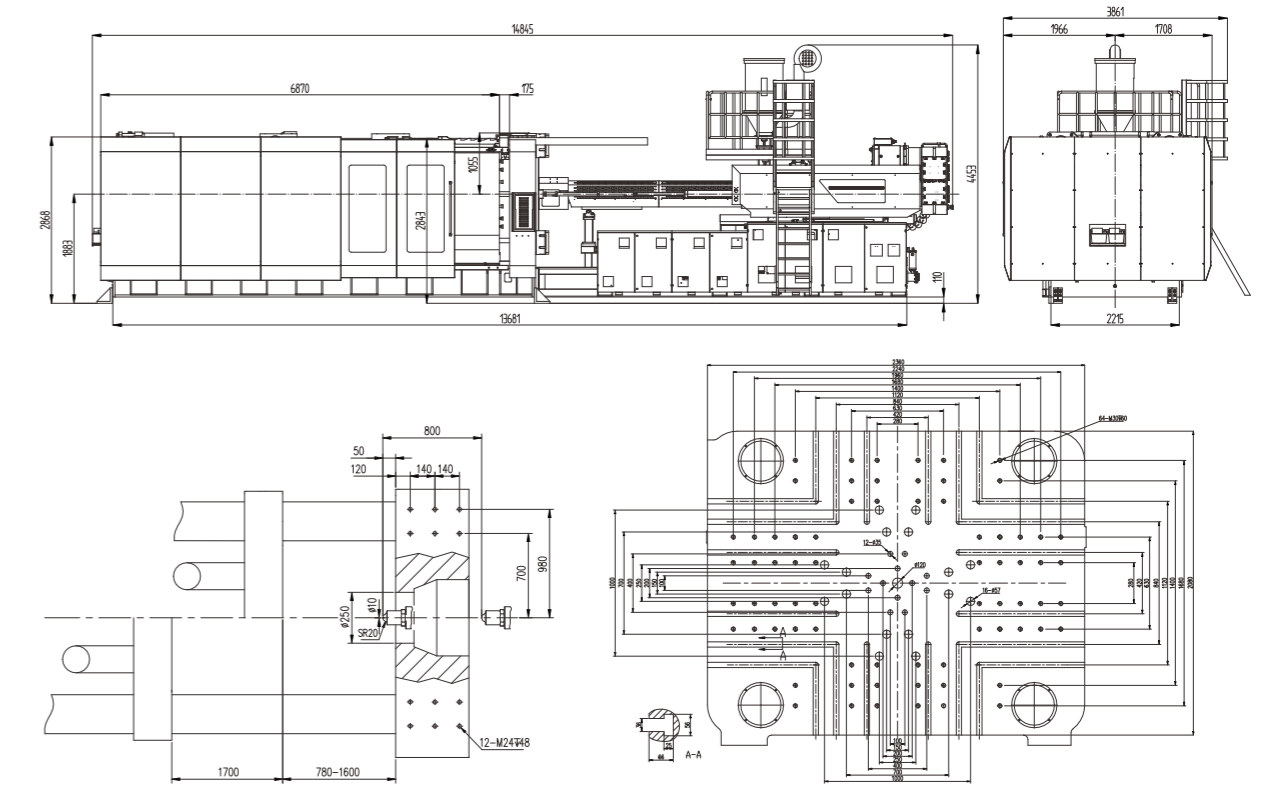
**BL1600EKW**

Note: A indicates the addition of electric charging to increase the size



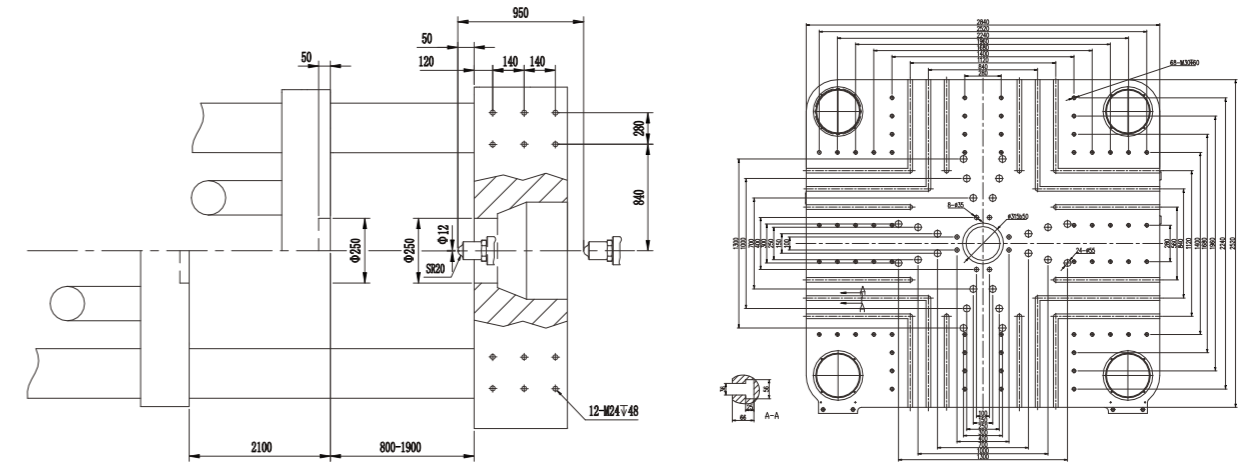
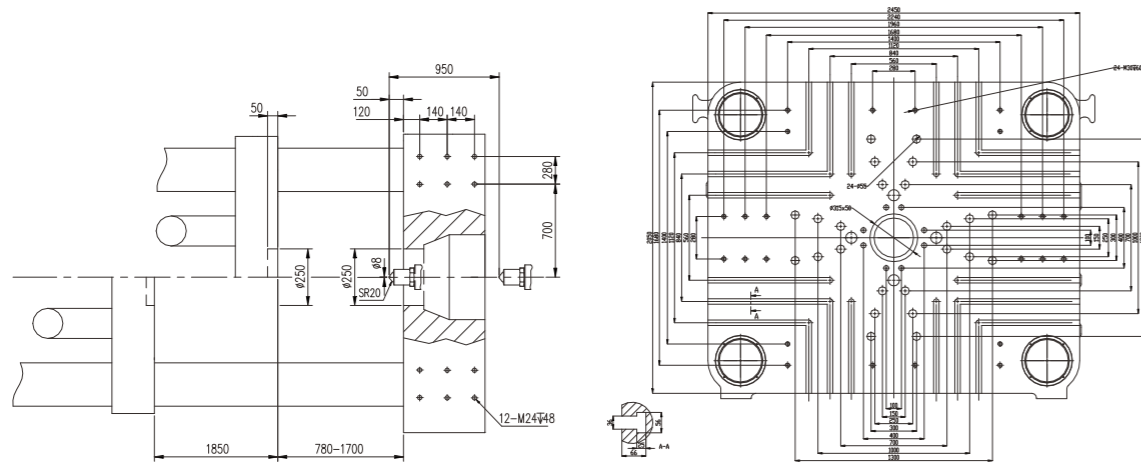
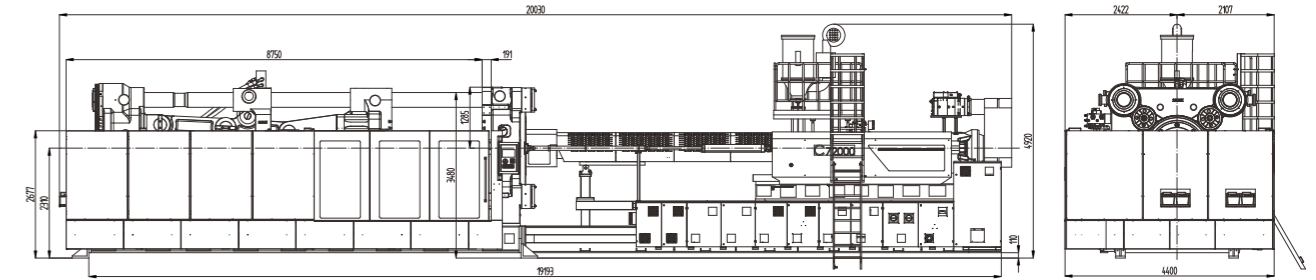
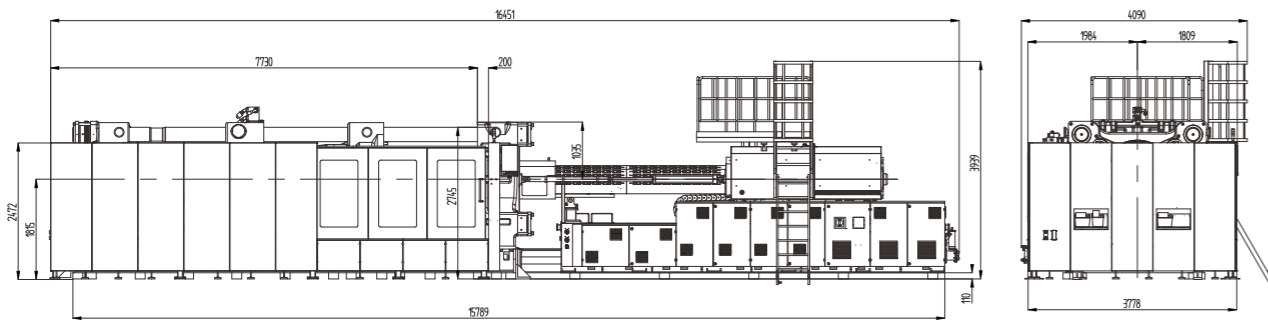
**BL1400EKW**

Note: A indicates the addition of electric charging to increase the size



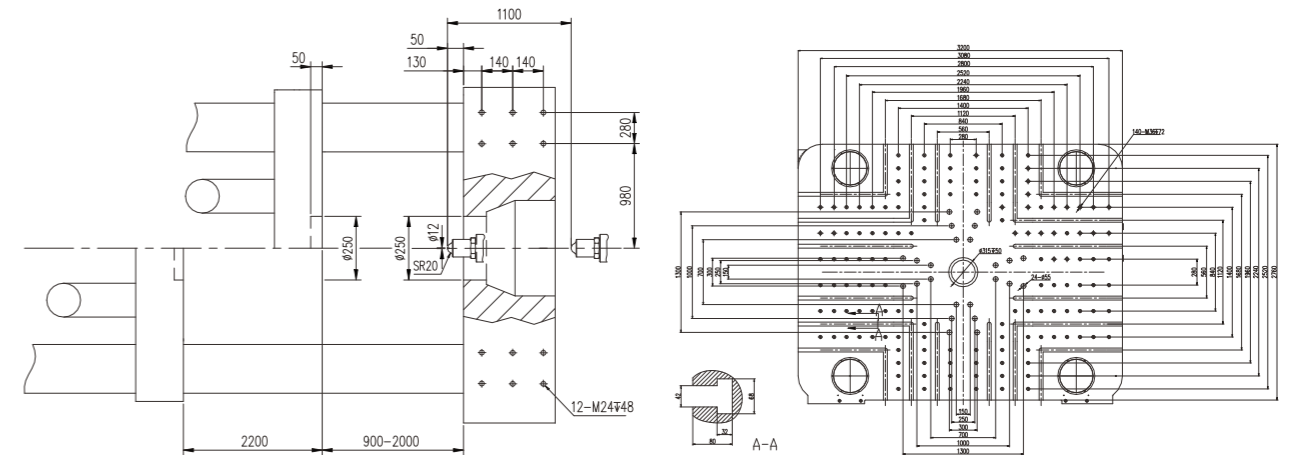
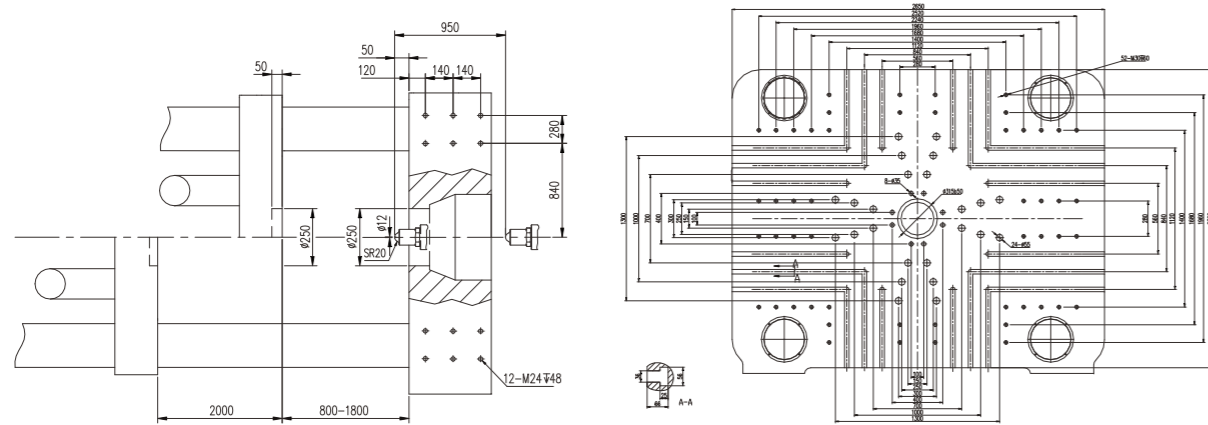
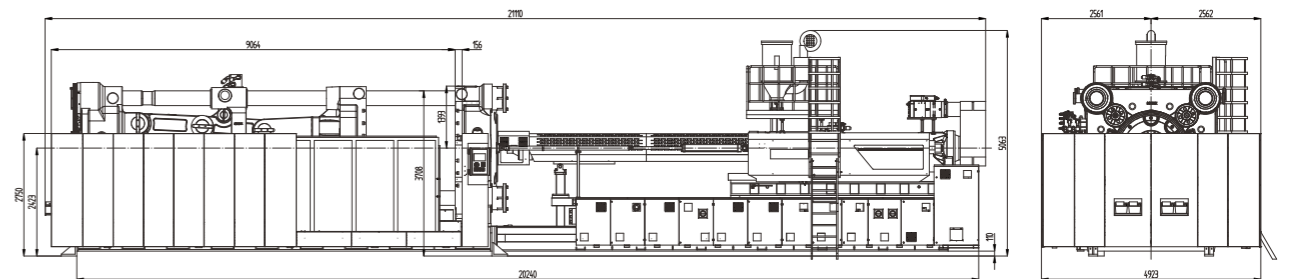
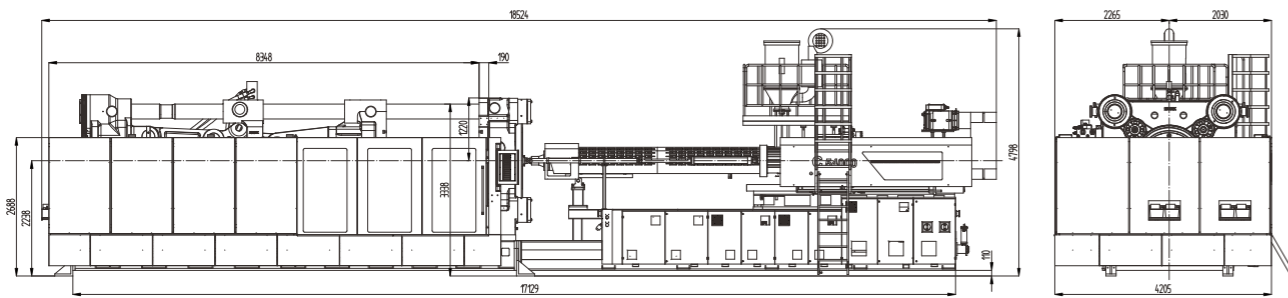
**BL1850EKW**

# Platen Dimensions & Machine Dimensions



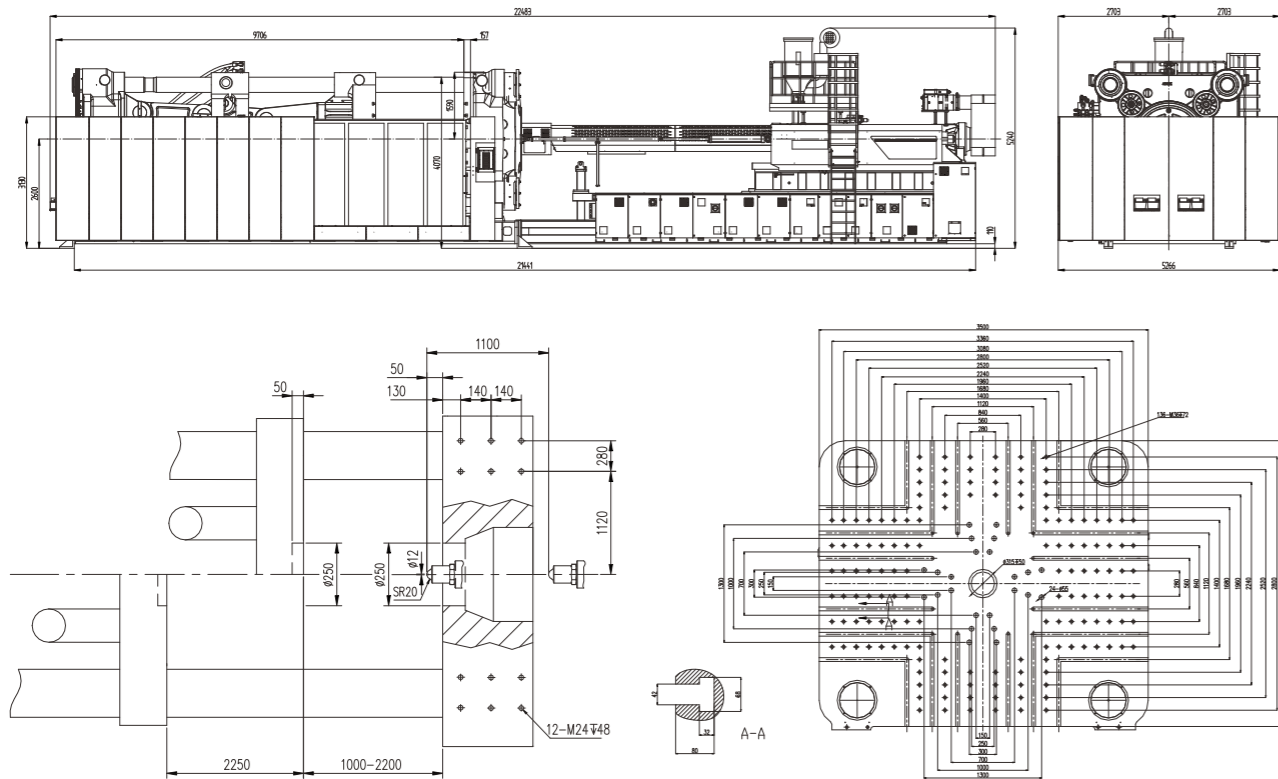
BL2100EKW

BL2800EKW

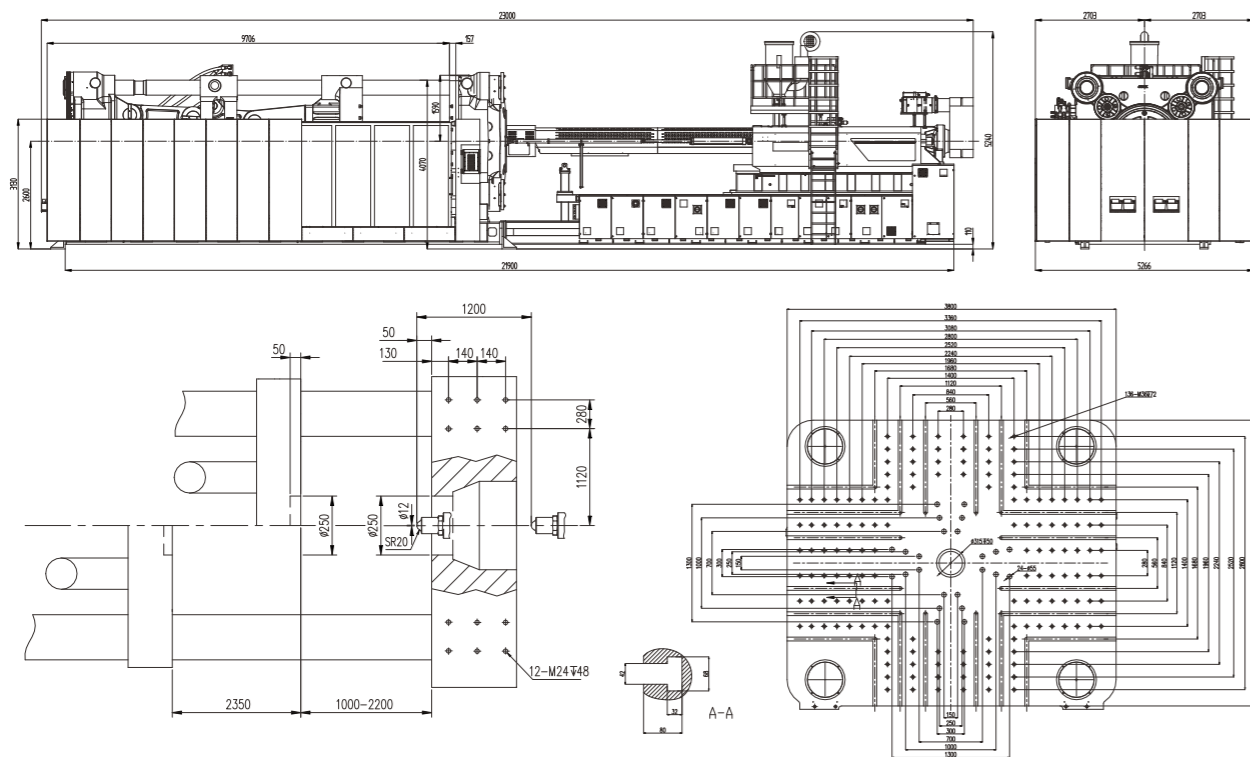


BL2500EKW

BL3300EKW



BL4000EKW



BL5500EKW

## Standard Configuration And Function List for BL-EKW Series

### Clamping Unit

- Patented five-point clamping mechanism with outward crankshaft get great opening stroke
- Widen platen design adapt to large-dimension mold
- High-precision and low-pressure protection mold function
- Hydraulic motor drives automatic gear for mold adjustment
- Adjustable support structure for moving platen reduces deformation of tie bar
- Mechanical, electrical, hydraulic two/three level safety protection device
- Equipped with mold safety pedal in the mold area (above BL1200EKW)
- Automatic safety door control (above BL700EKW)
- Mold opening and closing, ejecting movement are controlled by high-precision electronic ruler
- Various ejecting modes are optional, pressure and speed are set separately
- Synchronous ejection/core pulling function on machines BL2100EKW-5500EKW
- Five levels speed and the adjustable pressure for mold opening and closing
- Volumetric centralized lubrication system with automatic detection

### Electrical Control Unit

- Process parameter presetting function
- With setting value reference and online operation auxiliary description function
- Optional robot interface
- Parameter data protection lock
- PID temperature automatic control, realize self-calibration of barrel temperature
- USB interface, convenient for panel program update and mold parameters backup
- With the memory function of machine stopping, it can store 200 groups of mold data randomly
- 100 sets of exception alerts and 100 sets of modification record stores
- Multi-level password protection, and new setting according to different authorization levels, to prevent the wrong modification of molding parameters
- Input point and output point detection and I/O online simulation function, to quickly confirm the machine running status
- Multiple standby sockets (5-pin 32AX1 + 5-pin 16AX1 + 3-pin multi-function X1)
- Standard with the hopper and product-out detection for 100EKW-400EKW
- Emergency stop protection for front doors and back doors for all series, mold area emergency stop protection for 1200EKW-5500EKW
- Alarm light with audible prompt
- Electronic ruler control for the carriage movement

### Others

- Bole standard color
- Adjustable shock absorbers for the machine base
- Accessory box
- Common tools
- Damageable spare parts

### Hydraulic Unit

- Servo energy saving system
- Oil temperature detection, and oil temperature deviation automatic alarm
- Motor overload protection function
- with self-sealing oil absorption filter for above 470EKW
- Core pulling device
- 100-700EKW: Standard 1 set reserved 1 set (on movable platen)
- 800-1850EKW: Standard 2 sets (on stationary platen) and 1 set reserved (on movable platen)
- 2100-5500EKW: Standard 2 sets (1 set on stationary platen and 1 set on movable platen) and 2 sets reserved (1 set on stationary platen and 1 set on movable platen)
- Quick plug for mold cooling water (□ 10)
- 100-250EKW: Standard with 1 set, 5in/5out
- 300-470EKW: Standard with 1 set, 7in/7out
- 530-900EKW: Standard with 1 set, 9in/9out
- 1000-5500EKW: Standard with 2 set, 9in/9out+8in/8out

### Injection Unit

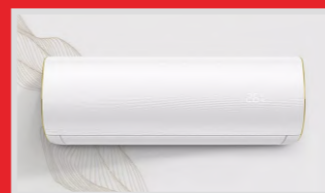
- High-efficiency plasticizing screw and barrel with high-quality nitrided steel
- Screw anti-cold-start delay setting, timing heating and automatic heat preservation function
- High-quality and large-torque hydraulic motor
- Leakproof function when the screw is backward
- Twin carriage cylinder design
- High rigidity support structure for injection unit
- Trimming function of nozzle centralization
- High-precision electronic ruler to control the injection stroke
- Six-section injection, five-section pressure hold, five-section material charging, pressure/speed adjustable
- Screw speed detection
- Automatic material cleaning function
- Proportioned back pressure for plasticizing
- Centralized lubrication for 1000EKW and above
- Feeding platform for 1000EKW and above
- Additional extension nozzle (100EKW-700EKW extend 50mm, 800EKW-5500EKW extend 100mm)
- Linear guide rail support structure for Injection seat and plasticizing seat

Due to the continuous product improvement, we reserve the right to adjust the individual parameters, without notice.

# APPLICATION AREA



Automobile industry



Household electrical  
appliance industry



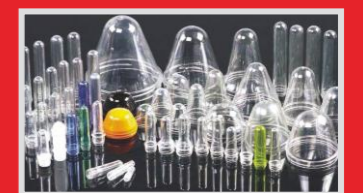
Medical products



Logistics building materials



3C Electronics



Preform product