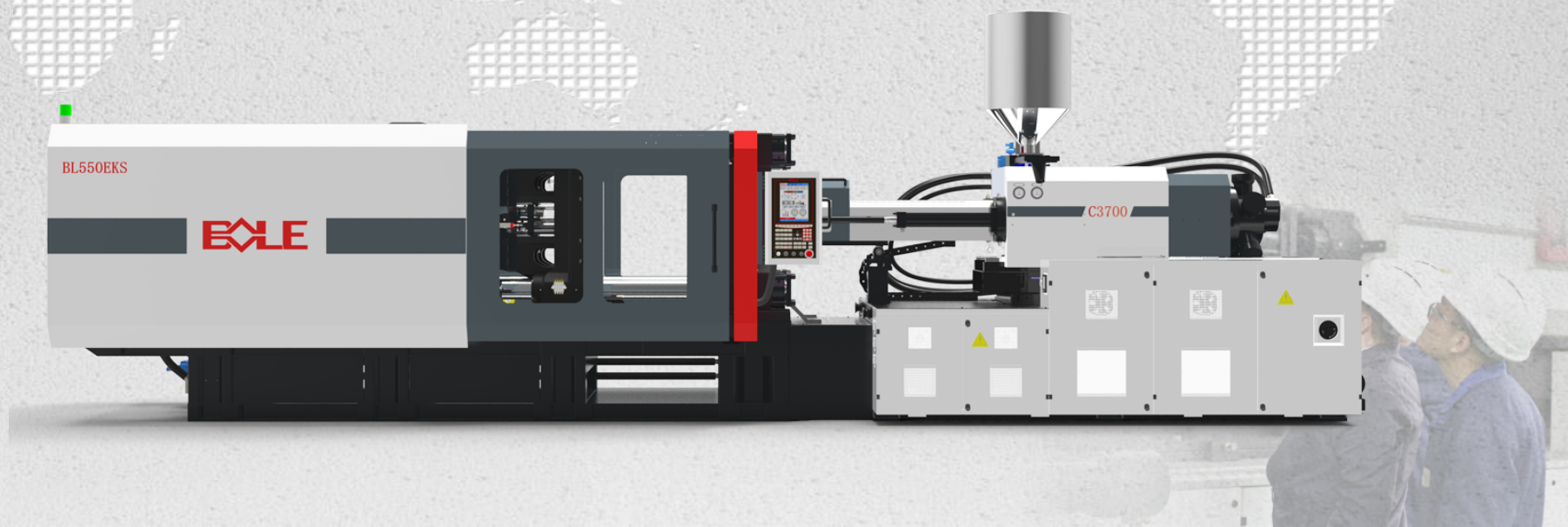


ELE 伯乐塑机
Injection Moulding Machine

EKS servo energy-saving injection molding machine



Our clients



销售网络覆盖全球73个国家和地区

GREE 格力 **美的 Midea** **AUX 奥克斯** **CHIGO 志高** **Panasonic** **TOSHIBA 东芝** **TCL** **Haier**



FOXCONN®

LG

BEIFA

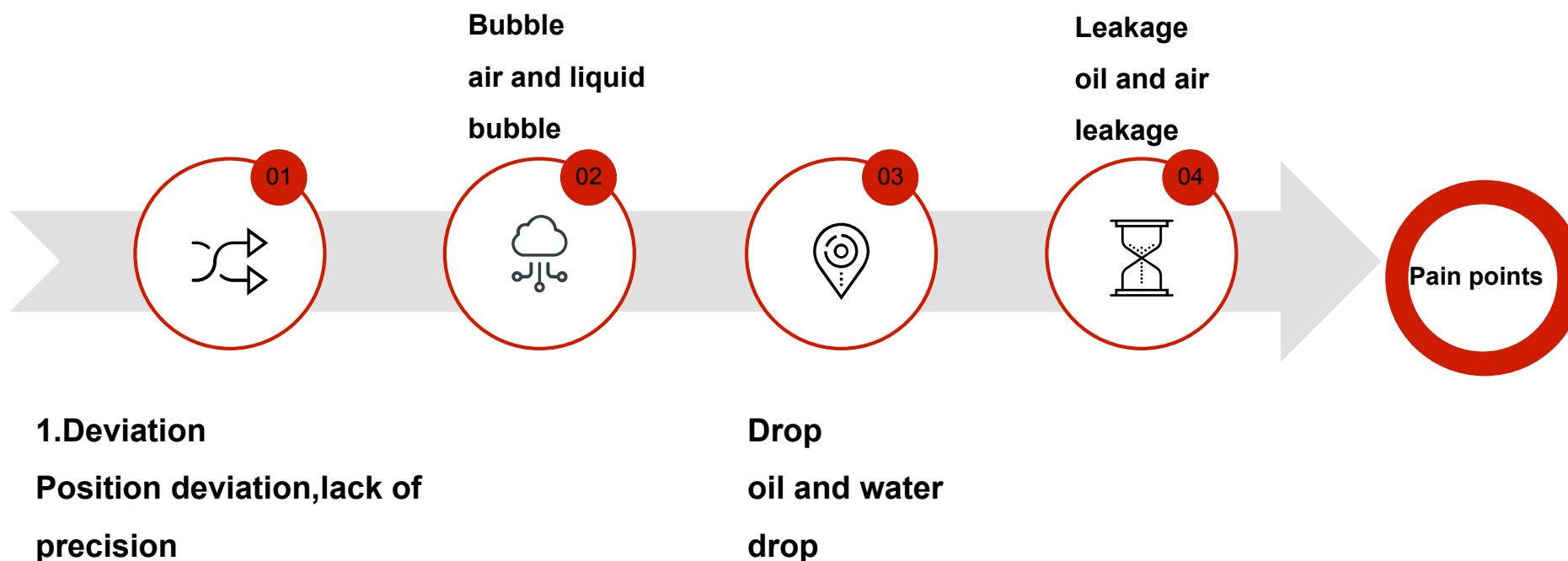
CSR 中国南车

MATTEL

世纪精信

利时

Technical bottleneck of chinese machines





EKS Director of R & D



Xiao jianguo

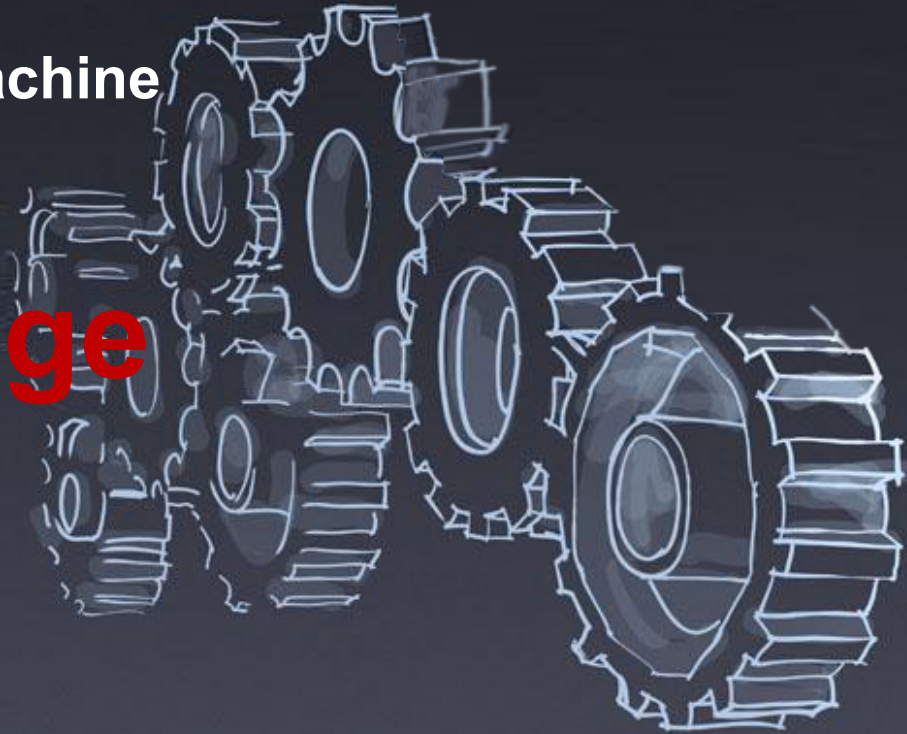
has more than 16 years of experience in technology application research and development management, injection molding machine experts, marketing technical support, maintenance team technical support and training, new product research and development and trial production, Customer application support, with a wide range of knowledge and technology.



EKS series

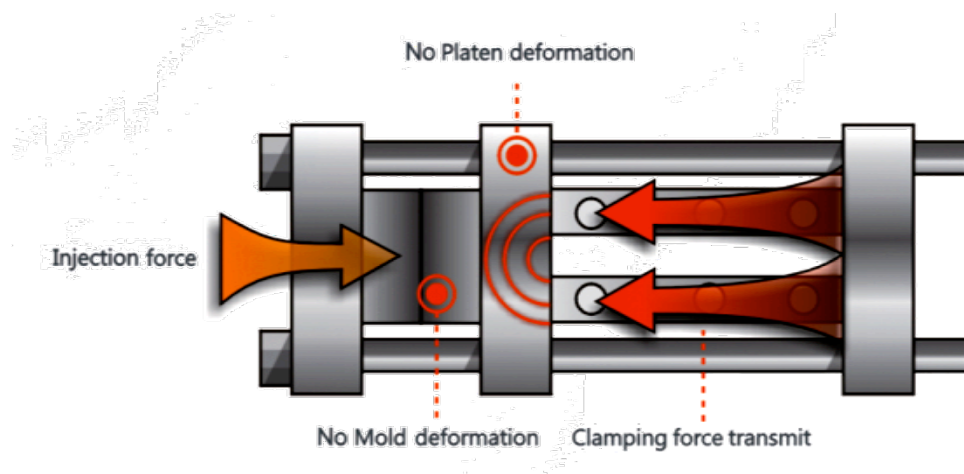
**Hydraulic servo energy-saving injection
molding machine**

advantage

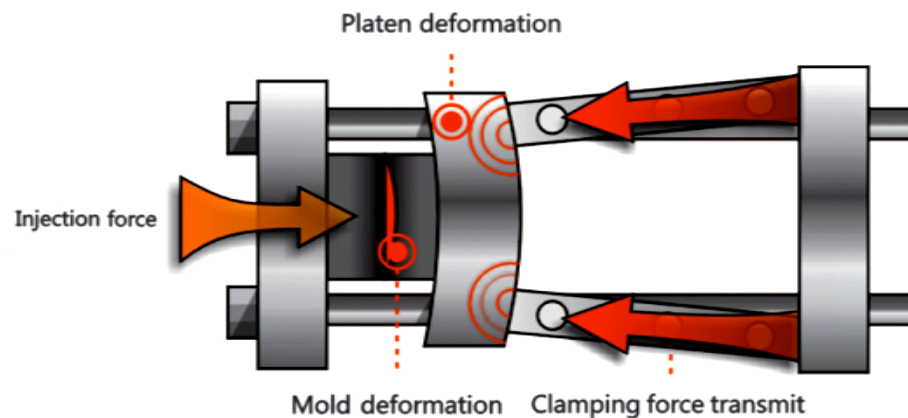


central clamping toggle system

National invention patent- Central mold locking
(patent number : ZL2011 10250342.5)



BOLE CENTRAL-CLAMPING STRUCTURE



TRADITIONAL CLAMPING UNIT



National Patent of Invention-Central Mold-locking system

01

High utilization ratio of clamping force up to 100%

04

force evenly, less deformation, equal stress
platen structure technology

02

Compared with the traditional machine,
central mold locking structure can save 2-
5% raw material for more than 80% mold

05

more suitable to small mold

03

Repeat accuracy $\pm 0.5\text{mm}$ injection end point:
 $\pm 0.2\text{mm}$ weight repeat accuracy: $\leq 0.3\%$ less flange
than traditional structure

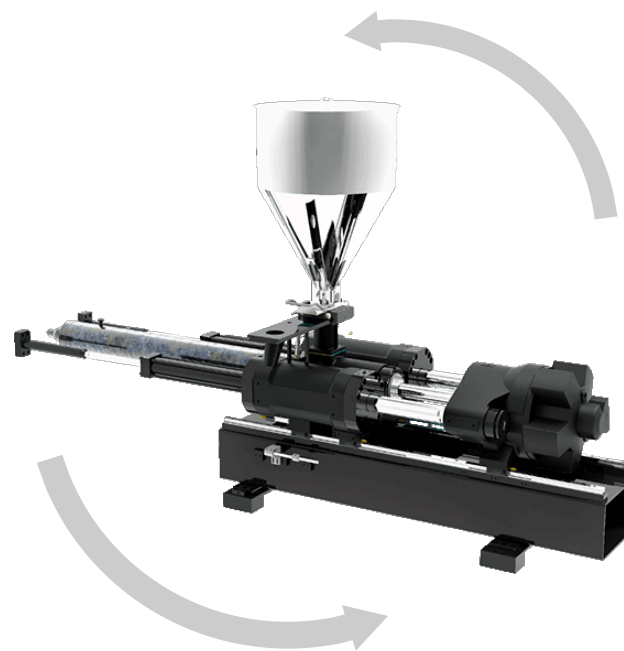
06

big open stroke, ejection stroke , easy to install
larger mold and robot

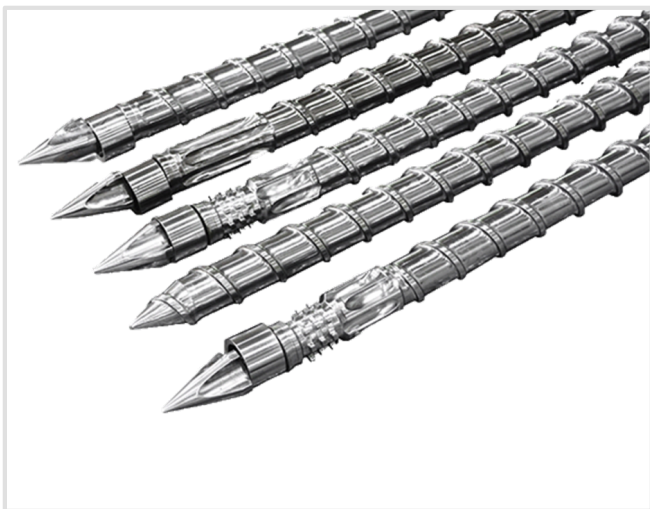


Unique injection cylinder design

The new injection cylinder, with very low oil return resistance, is combined with the structure of the linear **guide** to reduce the friction of the injection part and greatly improve the control precision of the injection unit.



Plasticizing system designed in Germany



The plasticizing efficiency is 20% higher than domestic level.



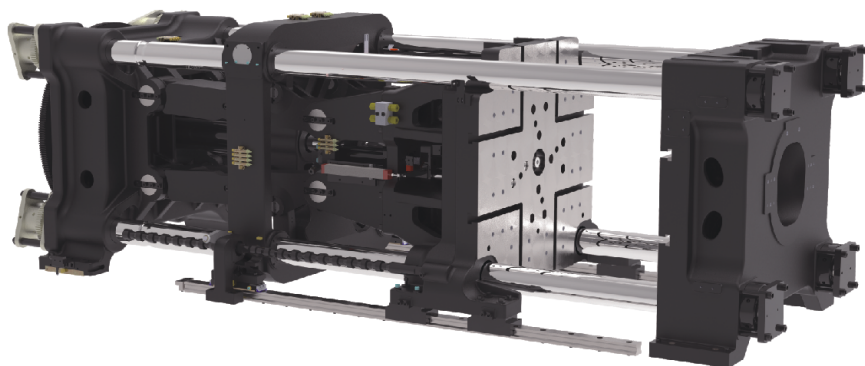
Special plasticizing system can be customized for various complex process requirements and application requirements;



All types of a/b/c screw applied with L/D ratio of 23:1 to ensure that each type of screw can achieve the best plasticizing effect and plasticizing efficiency.



Linear guide



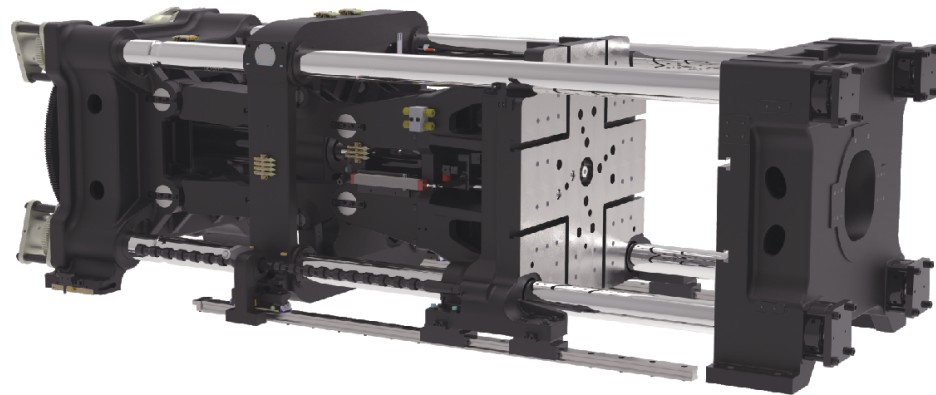
The moving plate slide foot adopts the linear guide to ensure the positioning accuracy . Because of the low resistance , faster opening and closing speed can be obtained, and the lubricating oil spatter can be avoided, so the performance of the whole machine is smoother and faster. (70-470EKS)



independent tie bar

tie bar no touch with moving platen, no lubrication, ensure the mold area clean。

(70-470EKS)



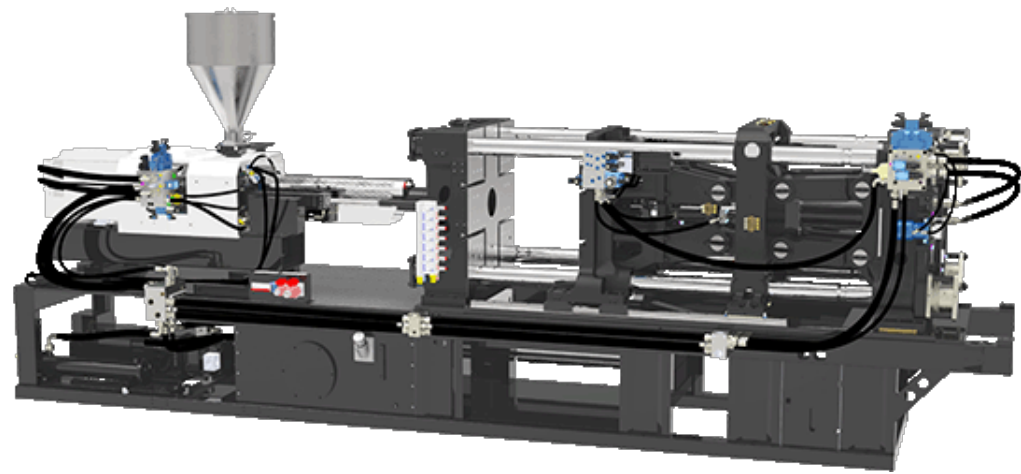
Intelligent software design

The specially designed oil circuit, combined with the patent open mold positioning precision control software, the opening and closing mold positioning precision within ± 0.5 mm, and the patent intelligent injection process compensation control software, the precision of the product is within 0.3%.



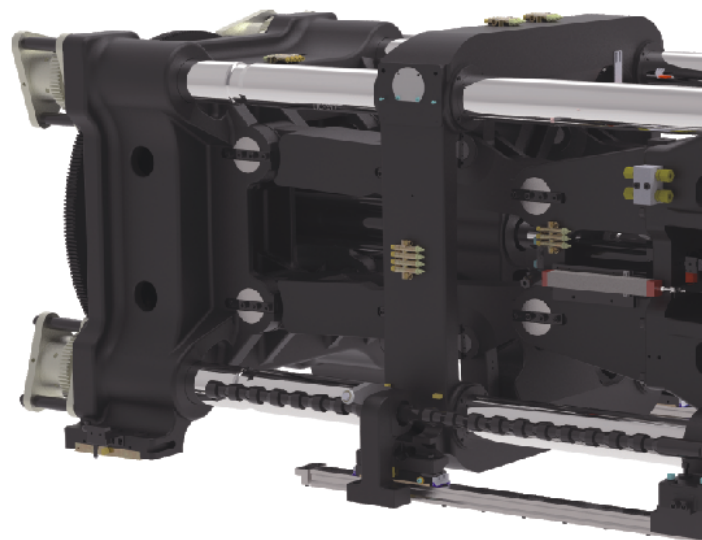
Soft hose

No welding for Hydraulic pipe to prevent oil leakage



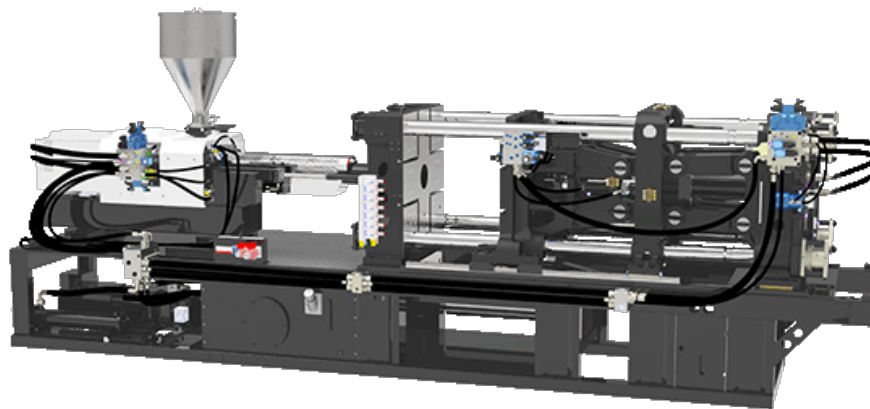
Built-in cylinder

(patented structure of the invention) Built-in cylinder, which saves more space than traditional external type cylinder structure (280-4000EKS) ;



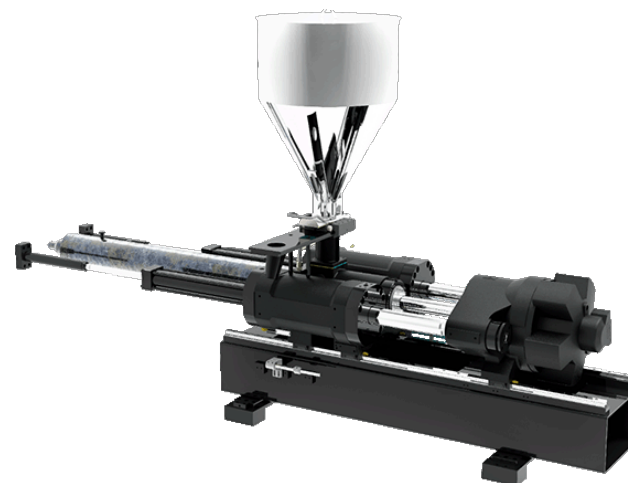
Oil temperature control function

The automatic control function of oil temperature ensures the stability of hydraulic system under different environments.



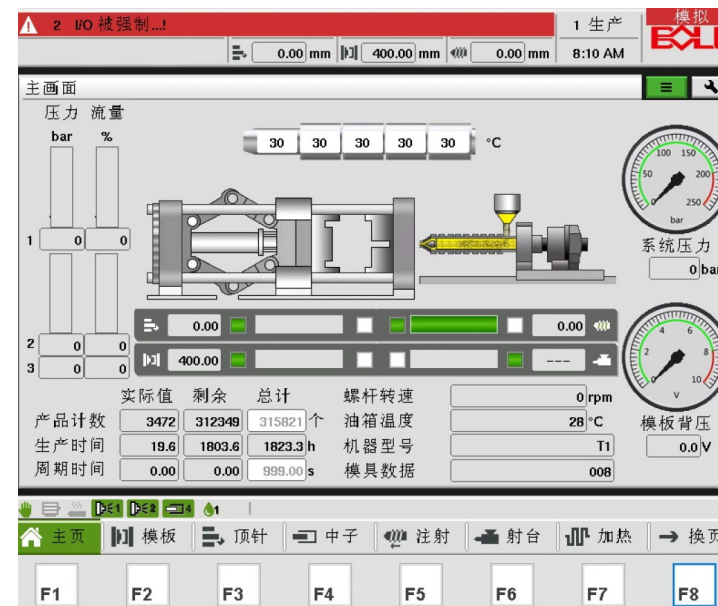
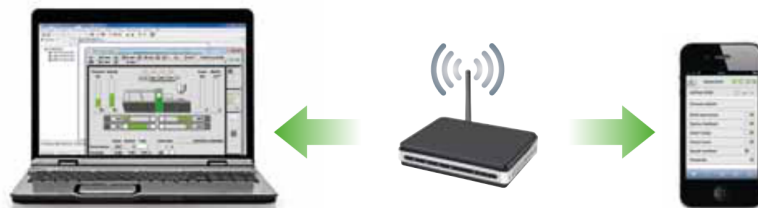
Stable feeding throat temperature

The stable temperature of the feeding throat prevents the instability of the feed due to the change of the temperature, affects the screw plasticization and injection accuracy, and improves the stability of the whole machine.



KEBA controller as standard configuration

KePlast EasyNet : Simple, user-friendly injection molding machine networking software, grasp the overall situation of machine production at any time, in order to quickly and timely response, to ensure the highest level of production capacity.



EKS advantages



stable

Complete system optimization, mechanical strength, precision to the advanced level of the industry.

economy

Less flash, less labor cost, less material cost, less raw material cost, faster plasticization, less time and less machine use cost

precise

Intelligent software algorithm (soft patent) mold opening and closing accuracy, product weight repetition accuracy is high

intelligent

Reserved industry 4.0 Extensible interface to meet various requirements.

Design team



Case One

Tianjin Hualida Bioengineering Co., Ltd.

It is one of the first enterprises in the field of genetic engineering pharmaceutical industrialization in China. It is a modern biopharmaceutical enterprise invested and operated by Peking University Weiming Bioengineering Group Co., Ltd.



Product and mold information

Product name: blood needle cover

material : ABS

weight : 1.2g (single one)

cavity : 128



Case Two

Product and mold info

sample time : 2018-04-12

factory : Tianjin Walida factory

model : BL280EKS

cavity : 128



Case Three

machine info

- 1、type A screw&barrel
- 2、screw dia55mm(forPP、ABS)
- 3、L/D 23 : 1
- 4、tie bar spacing : 660×610mm
- 5、open stroke : 580mm
- 6、cpu-IV3100-10inch screen
- 7、system pressure : 17.5Mpa
- 8、motor power : 27KW



case

production status

reducing weight to higher precision and more stable production control-injection stability

序號	射膠終點	射膠時間	加料終點	開模終點	過期時間	記錄時間
500	27.9	2.5	85.2	200.9	15.9	04/20/18 14:41:12
499	28.0	2.5	85.1	201.7	15.9	04/20/18 14:40:56
498	27.9	2.5	85.1	201.1	15.9	04/20/18 14:40:41
497	27.9	2.5	85.1	201.7	15.9	04/20/18 14:40:26
496	27.9	2.5	85.3	201.7	15.9	04/20/18 14:40:10
495	27.9	2.5	85.3	201.9	15.9	04/20/18 14:39:55
494	28.0	2.5	85.3	201.7	15.9	04/20/18 14:39:39
493	27.9	2.5	85.1	201.7	15.9	04/20/18 14:39:24
492	28.0	2.5	85.2	201.8	15.9	04/20/18 14:38:53
491	28.0	2.5	85.2	201.8	15.9	04/20/18 14:38:22
490	28.0	2.5	85.1	202.2	15.9	04/20/18 14:38:38
489	28.1	2.5	85.2	201.8	15.9	04/20/18 14:38:22
488	27.8	2.5	85.2	201.8	15.9	04/20/18 14:38:07
487	27.9	2.5	85.2	201.7	15.9	04/20/18 14:37:52
486	28.0	2.5	85.2	201.4	15.9	04/20/18 14:37:36
485	28.0	2.5	85.1	201.4	15.9	04/20/18 14:37:21
484	27.9	2.5	85.1	201.2	15.9	04/20/18 14:37:06
483	28.5	2.5	85.2	201.1	15.9	04/20/18 14:36:50
482	28.0	2.5	85.1	200.7	15.9	04/20/18 14:36:35
481	27.9	2.5	85.4	201.7	15.9	04/20/18 14:36:19

other brand injection end point variety : 1.5

序号	制品时间	射出时间	射出起点	保压起点	残料位置	储料位置
20	13.0	3.460	130.2	46.8	46.9	120.7
21	12.9	3.460	130.2	46.9	46.9	120.7
22	12.9	3.461	130.2	46.9	46.9	120.7
23	13.0	3.460	130.2	46.8	46.9	120.7
24	13.0	3.461	130.2	46.9	46.9	120.7
25	12.9	3.460	130.2	46.9	46.9	120.7
26	13.0	3.461	130.2	46.9	46.9	120.7
27	12.9	3.461	130.2	46.9	46.9	120.7
28	12.9	3.460	130.2	46.9	46.9	120.7
29	12.9	3.460	130.2	46.9	46.9	120.7

bole injection end point variety : 0.1

case

production status

reducing weight to higher precision and more stable production control-open end position stability :

序号	开模时间	关模时间	开模终点	关模终点	记录时间
500	21.4	80.0	244.8	15.8	08/27/18 13:32:54
499	21.4	80.0	244.8	15.8	08/27/18 13:32:53
498	21.4	80.0	244.8	15.8	08/27/18 13:32:52
497	21.4	80.0	244.8	15.8	08/27/18 13:32:51
496	21.4	80.0	244.8	15.8	08/27/18 13:32:50
495	21.4	80.0	244.8	15.8	08/27/18 13:32:49
494	21.4	80.0	244.8	15.8	08/27/18 13:32:48
493	21.4	80.0	244.8	15.8	08/27/18 13:32:47
492	21.4	80.0	244.8	15.8	08/27/18 13:32:46
491	21.4	80.0	244.8	15.8	08/27/18 13:32:45
490	21.4	80.0	244.8	15.8	08/27/18 13:32:44
489	21.4	80.0	244.8	15.8	08/27/18 13:32:43
488	21.4	80.0	244.8	15.8	08/27/18 13:32:42
487	21.4	80.0	244.8	15.8	08/27/18 13:32:41
486	21.4	80.0	244.8	15.8	08/27/18 13:32:40
485	21.4	80.0	244.8	15.8	08/27/18 13:32:39
484	21.4	80.0	244.8	15.8	08/27/18 13:32:38
483	21.4	80.0	244.8	15.8	08/27/18 13:32:37
482	21.4	80.0	244.8	15.8	08/27/18 13:32:36
481	21.4	80.0	244.8	15.8	08/27/18 13:32:35

other brand mold open end positon variety : 3.2

序号	开模时间	关模时间	开模终点	关模终点	开模终点稳定性	关模终点稳定性
0	4.39	3.40	229.8	38.2	25.6	2.961
1	4.16	3.39	229.8	39.0	25.6	2.960
2	3.99	3.37	229.8	39.5	26.8	2.961
3	3.90	3.36	229.8	39.7	27.5	2.961
4	3.98	3.35	229.8	39.6	27.0	2.961
5	3.64	3.34	229.8	39.7	26.1	2.961
6	2.86	3.34	229.8	39.9	28.8	2.960
7	2.13	3.32	230.4	40.4	48.1	2.960
8	3.61	3.33	229.8	40.0	27.1	2.960
9	3.31	3.32	229.8	39.9	26.9	2.960

bole mold open end position variety : 0.6

<div>  宁波双马机械工业有限公司 NINGBO SHUANGMA MACHINERY INDUSTRY CO., LTD. </div>									
客户回访记录表									
客户基本信息									
客户名称: 上海中实华达科技股份有限公司					客户地址: 上海浦东新区惠南镇康桥村5				
联系方式: Tel: 1892902007 Fax: _____ Email: _____									
产品信息									
产品名称: 乘龙装载机			规格型号: RL280E6s			产品图片: _____			
材料: ABS			厂家(牌号): _____						
产品尺寸: 12X10X30			额定功率: 50 X 30 X 30						
产品重量(整机): 1.2 吨			额定容量: 1 吨						
产品重量(总重): 20200 斤			额定结构: 3 吨 4 吨						
主要性能参数									
项目	一挡	二挡	三挡	四挡	五挡	六挡	七挡	八挡	九挡
速度	2.25	2.27	2.28	1.90					
燃油	120	80	70	60	100	100	100	100	100
油耗	12.5	20	20	20	12	12	12	12	12
效率	0	0	10	10	10	10	10	10	10
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量	120	85	60	60	120	120	120	120	120
效率	12.5	20	20	20	12	12	12	12	12
功率	50	10	0	0	0	0	0	0	0
扭矩	170	85	60	60	120	120	120	120	120
重量</									

Conclusion and analysis

conclusion :

- 1.The EKS series is not only larger than that of domestic competitors in terms of mold capacity and opening stroke, but also more precise in the controlling accuracy of machine action and product repetition accuracy within 0.3% ,while the computer control software is patented. The repeat accuracy of open position is controlled within $\pm 0.5\text{mm}$, and the injection end point is controlled within $\pm 0.2\text{mm}$.
- 2.The high repetition accuracy of EKS has reached the advanced level of the industry, fully meet the needs of the medical supplies industry.
- 3.The high performance plasticizing system designed in Germany has far more ability than the domestic brand, and has a wider range of adaptation to raw materials.



Bole is dedicated to be a great plastic machinery manufacturer around the world!