BOLE 伯乐塑机

Injection Moulding Machine

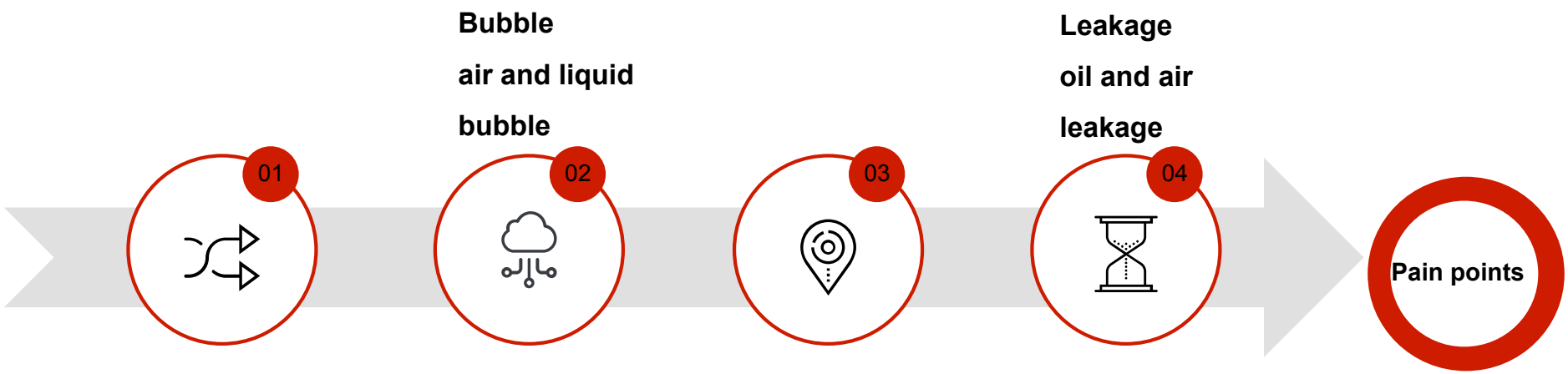
EKS servo energy-saving injection molding machine

Our clients

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

FOXCONN LG BEIFA CSR 中国南车 MATTEL 世纪精信 利时

Technical bottleneck of chinese machines



1.Deviation

Position deviation,lack of precision

Bubble

air and liquid bubble

Drop

oil and water drop

Leakage

oil and air leakage

BOLE 伯乐塑机

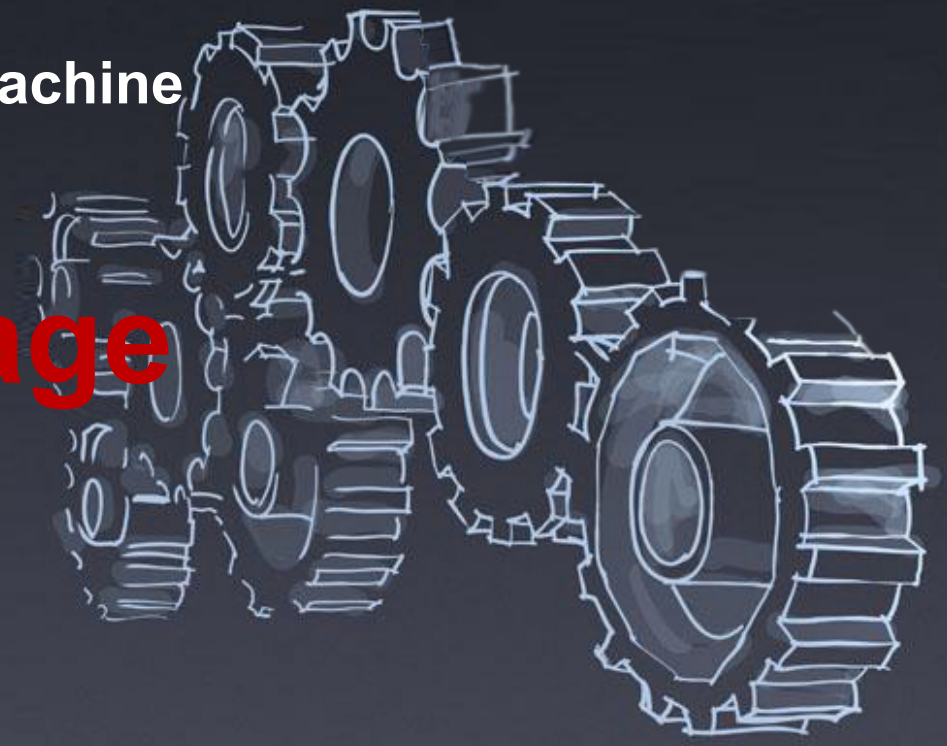
EKS Director of R & D

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

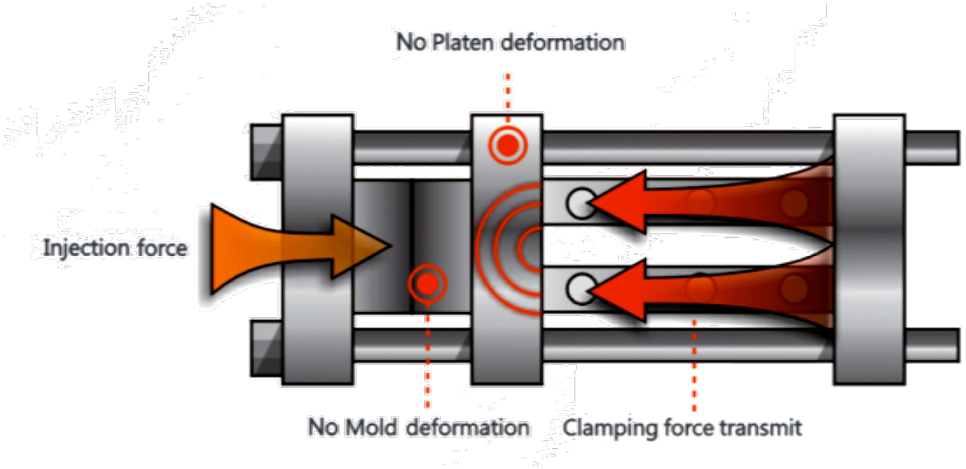
Hydraulic servo energy-saving injection molding machine



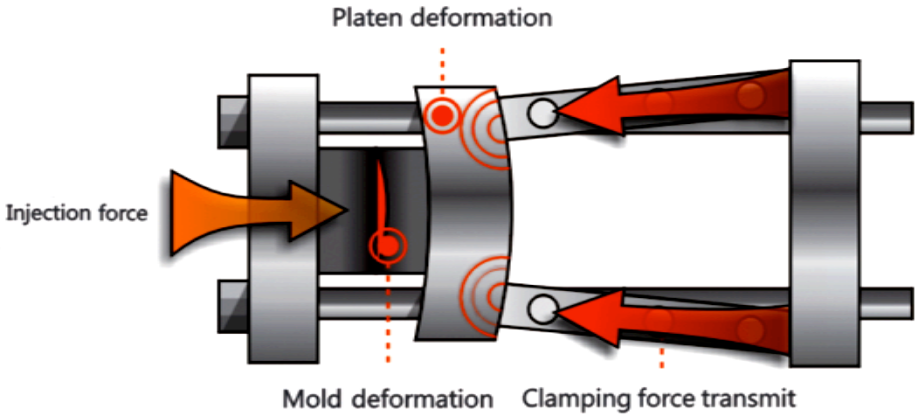
advantage

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%

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

03 Repeat accuracy ±0.5mm injection end point: ±0.2mm weight repeat accuracy: ≤ 0.3% less flange than traditional structure

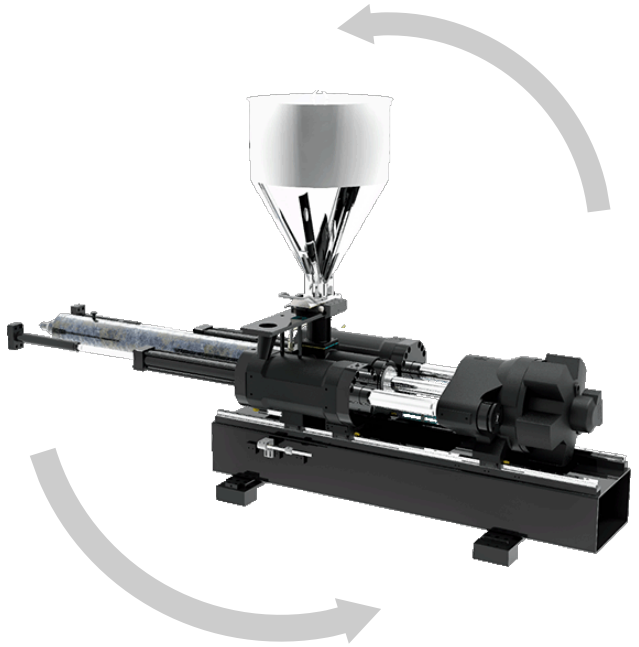
04 force evenly, less deformation, equal stress platen structure technology

05 more suitable to small mold

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

Unique injection cylinder design

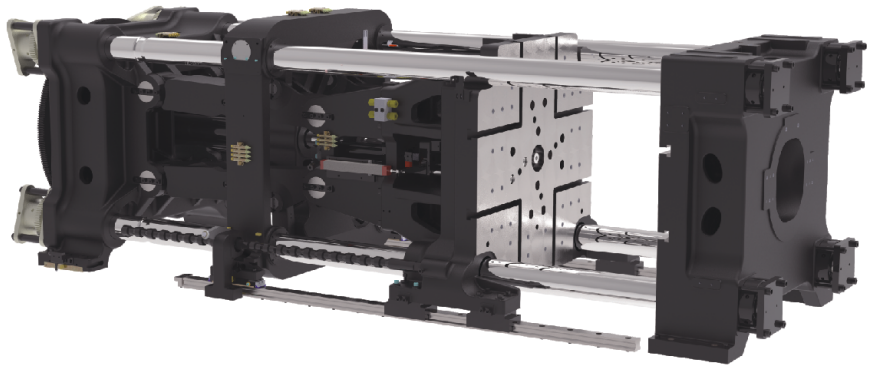
The new injection cylinder, with very low oil return resistance, is combined with the structure of the linear **guide** to reduce the friction of the injection part and greatly improve the control precision of the injection unit.



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

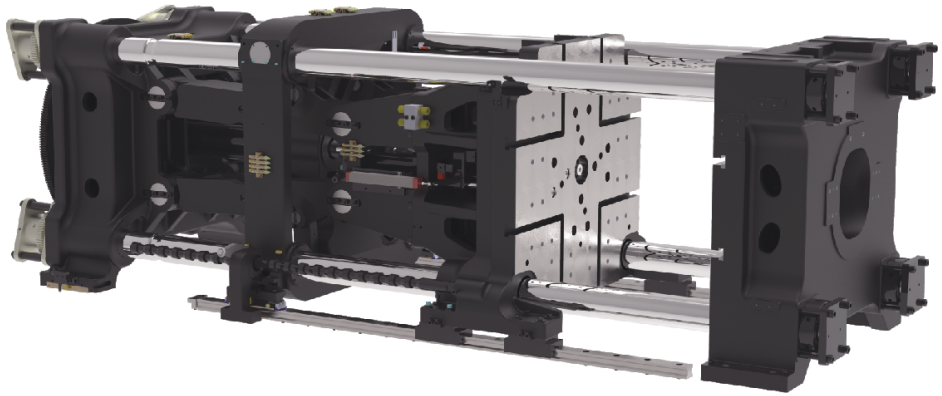


The moving plate slide foot adopts the linear guide to ensure the positioning accuracy . Because of the low resistance , faster opening and closing speed can be obtained, and the lubricating oil spatter can be avoided, so the performance of the whole machine is smoother and faster.（70-470EKS）

independent tie bar

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

（70-470EKS）

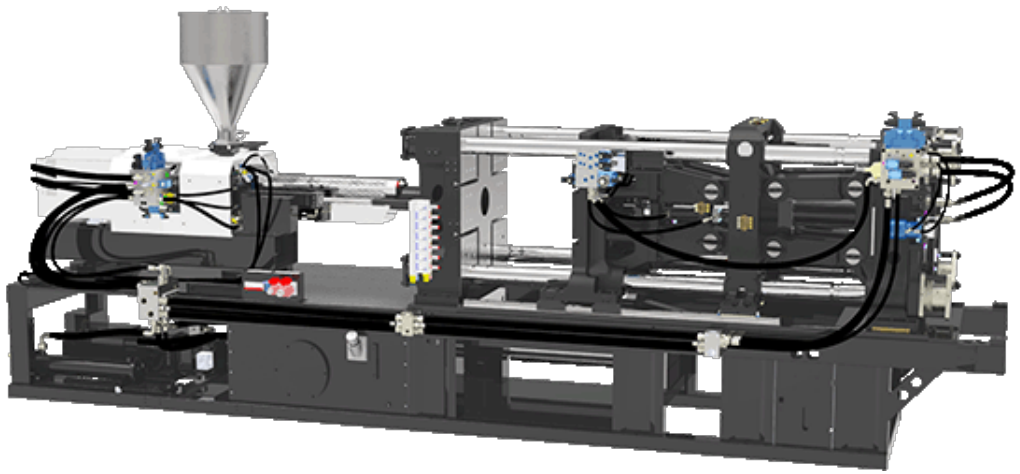


Intelligent software design

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%.

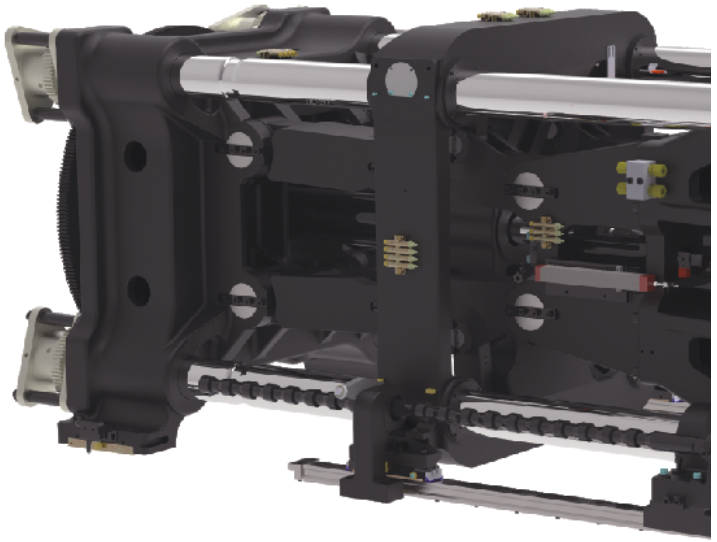
Soft hose

No welding for Hydraulic pipe to prevent oil leakage



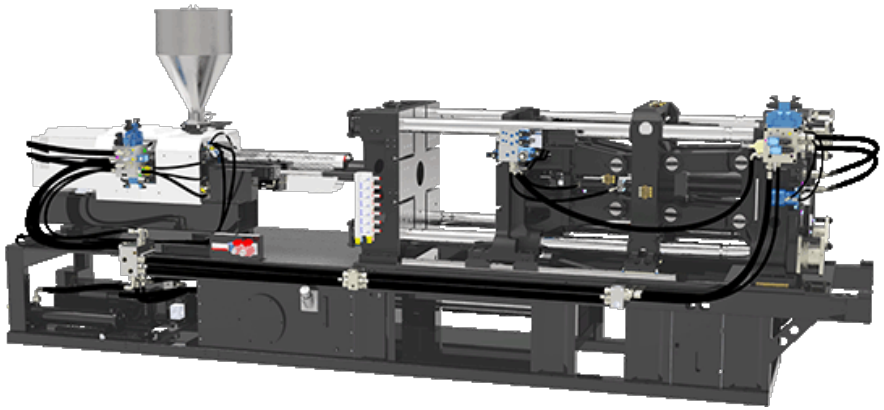
Built-in cylinder

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



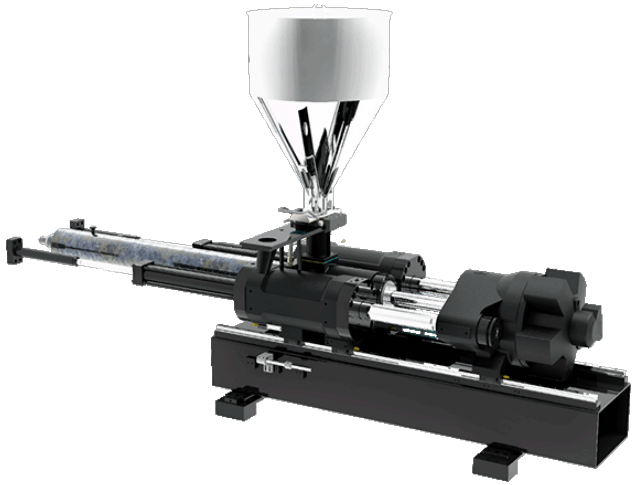
Oil temperature control function

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



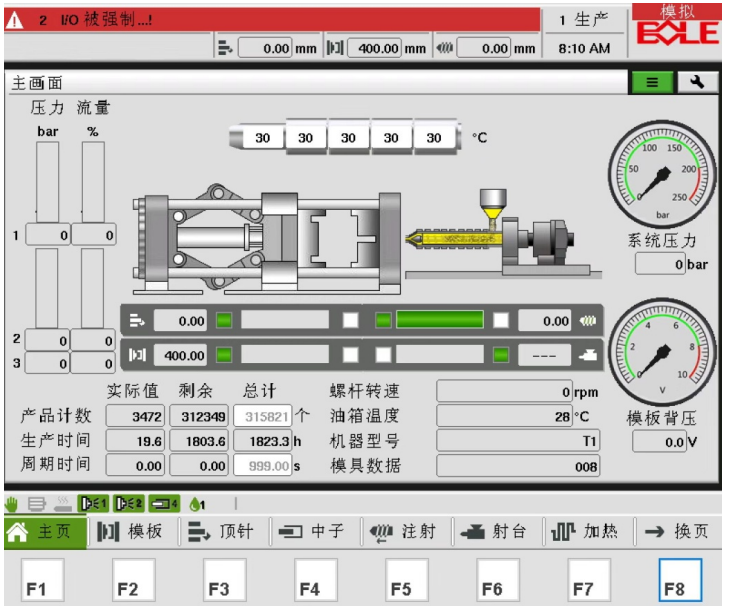
Stable feeding throat temperature

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

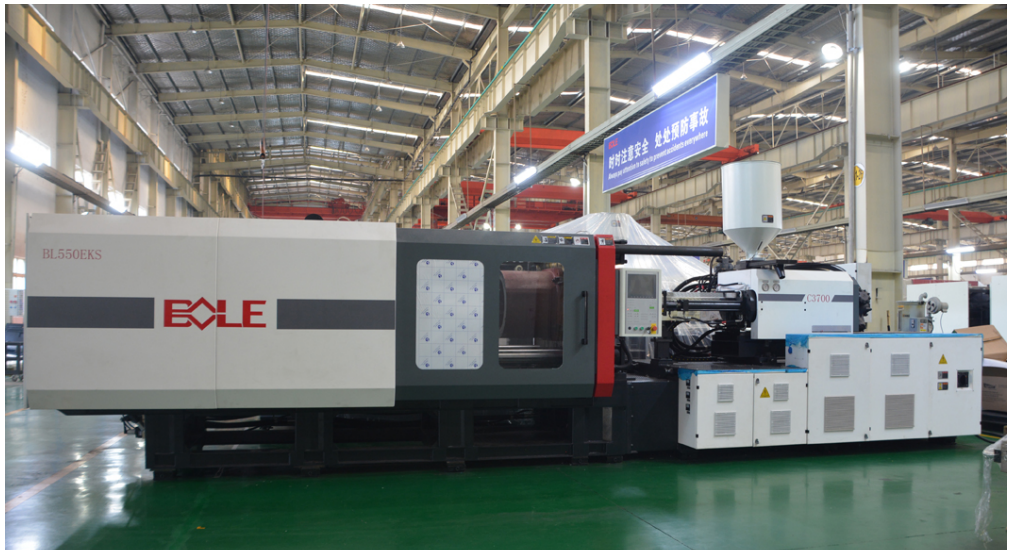
4、tie bar spacing：660×610mm

5、open stroke：580mm

6、cpu-IV3100-10inch screen

7、system pressure：17.5Mpa

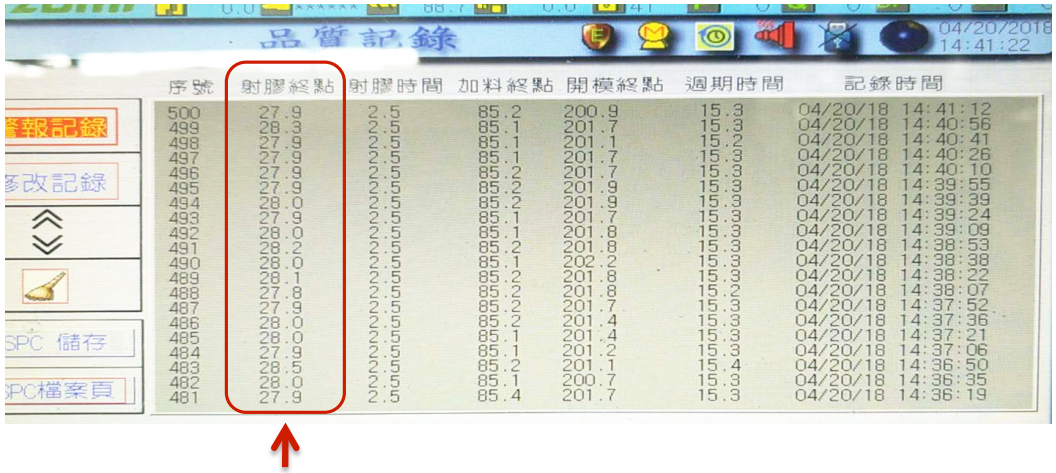
8、motor power：27KW



case

production status

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



other brand injection end point variety ：1.5

bole injection end point variety ：0.1

case

production status

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

other brand mold open end positon variety：3.2

bole mold open end position variety：0.6

case

production status

High precision of product repetition

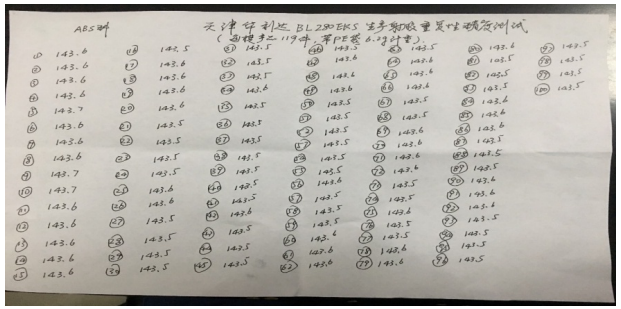
measuring mode：electric sacle， precison：0.1g

count method：sample standard deviation /average weight

smaple method：After stabilization, 100 consecutive mold.

statistical result：max143.7g， min 143.5g， average143.6g；

Bole-280EKS Weight repetition accuracy≤ 0.07%



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 ±0.5mm, and the injection end point is controlled within ±0.2mm.

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!