



包头科发高压科技有限公司

BaoTou KeFa High Pressure Technology Co., Ltd

K F H P P

一、Company brief

BaoTou KeFa High Pressure Technology Co., Ltd . started to design, manufacture and markets high pressure machine for food processing since 2001 years. we are apply oneself to open and innovate our Fresher Food Technology High Pressure Processing HPP . we are the China even Asia leader in High Pressure Processing, HPP technology and high pressure metal parts. We have a team of professionals in High Pressure Processing technology, research and development, technical support and customer service, engineering, sales, and marketing. Our mission, very simply, is to help the Food industry and New material technology provide safe, high-quality, innovative HPP products. Our High Pressure Processing (HPP) product line includes small lab presses for testing and large commercial-scale systems with pressure vessel capacities from 5 liters up to nearly 1000 liters (Inner Diameter 100-400mm, Length 400-5000mm, Temp 90 C°) for college, institute , food factory and **New materials** Powder metallurgy, ceramics, New energy technology solid state electrical core material etc application fields. Usable with water medium maximum standard operating pressure at 87,000 psi (600 MPa). Our vessel structure three layers heat-shrink sleeve +Wound steel belt structure and autofrettage technology assures the maximum in pressure vessel safety at lower weights, thus reducing facility and low costs. Up to now , we have already designed and manufactured different spec HPP machine more than 1000 sets for customer.

We can supply and provide HPP machine specification as follows:

1、 Small model test spec and main parameters :

HPP600MPa/3-15L-- IDØ120mm--200mm / Vertical or Horizontal mode

2、 The pilot middle-sized production spec and main parameters:

HPP600MPa/30-100L-IDØ200mm-300mm/Vertical or Horizontal mode

3、 The large-scale production spec: Horizontal Mode / IDØ300mm--400mm :

- (1) the single (Mono) vessel spec: HPP600MPa/100-500L;
- (2) the parallel 2 (Duo) vessel spec: HPP600MPa/2×100L—2×500L

At present, we have already obtained Europe "CE" and "PED" certificate and American "ASME-U3" certificate. And our machines have been exported to more than 20 countries and regions, including South Korea, Japan, Thailand, Vietnam, Philippine, Malaysia, Egypt, Israel, Saudi-Arab, India, Canada, Mexico, American, Poland, Hungary, Greece, Austria, New Zealand and China Taiwan, HongKong etc.

The American Society of Mechanical Engineers



CERTIFICATE OF AUTHORIZATION

The named company is authorized by The American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the ASME Single Certification Mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with the ASME Single Certification Mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.

COMPANY:

BaoTou KeFa High Pressure Technology Co., Ltd.
 No. 19, Alatanhan Street,
 Rare-Earth Hi - Tech Zone
 Baotou, Inner Mongolia 014030
 People's Republic of China



SCOPE:

Manufacture of pressure vessels at the above location only
 (This authorization does not cover welding, brazing or fusing)

AUTHORIZED: **May 04, 2023**
 EXPIRES: **May 04, 2026**
 CERTIFICATE NUMBER: **41346**

Ronald B. Caplan
 Board Chair, Conformity Assessment

Y.M. Eisenberg
 Managing Director, Standards & Engineering Services





SERTİFİKA / CERTIFICATE

97/23/AT DİREKTİFİNE GÖRE SON DEĞERLENDİRMENİN İZLENMESİYLE
İÇ ÜRETİM KONTROLÜ(MODUL A1)
INTERNAL MANUFACTURING CHECKS WITH MONITORING OF THE FINAL ASSESSMENT (MODULE A1)
ACCORDING TO DIRECTIVE 97/23/EC

Sertifika No. : PED-C-021/18
Certificate Nr.
Onaylanmış Kuruluş Tanıtım Numarası : 2138
Identification No of the Notified Body
Rapor No. : PED-R-021
Report Nr.

Üreticinin Adı / Adresi : BAOTU KEFA HIGH PRESSURE
Name and Address of the Manufacturing Plant : TECHNOLOGY CO. LTD.
No. 11, Campus Road, Park East Hi-Tech Zone, Baotou, Inner
Mongolia, China

Değerlendirme Kapsamı : High pressure processing equipment
Scope of Examination : PS: 6000 Bar
Volume (V): 1000L
Medium: Water
TS: 0 to 50°C
Model: HPP600MPa/30L, HPP600MPa/15L, HPP600MPa/30L,
HPP600MPa/50L, HPP600MPa/100L, HPP600MPa/200L,
HPP600MPa/300L

Üretici veya bayisi temel gereksinimlerinin muayenesinden sonra muayene kapsamındaki basınçlı ekipman üretimi için aşağıda gösterilen şekilde CE işaretini onaylanmış kuruluş numaramız ile sağlanması için yükümlüdür.

The manufacturer is obliged to examine of the pressure vessels – authorized to provide his pressure equipment manufactured within the scope of the examination with the CE mark and identification number illustrated as:

CE
2138

Sertifika Düzenleme Tarihi: 22.05.2018
Certificate Issue Date:

Sertifika Geçerlilik Tarihi: 22.05.2019
Certificate Validity Date:

ALBARK QA ULUSLAR ARASI TEKNİK
KONTROL VE BELGELENDİRME LTD. ŞTİ.
Futuşpaşa Cad. No:55 Randoç Plaza
Etiler D-4 K. Beşiktaş/İstanbul/ TÜRKİYE
Tel : 0216 572 49 10-11-12
Fax : 0216 572 49 14 www.ataktchbil.com



Latif Murat YILMAZ
Genel Müdür / General Manager



二、 The company provides the technical advantages of Ultra-High Isostatic Pressure machines HPP

The ultra-high pressure machine (HPP) above 600MPa is not ordinary mechanical equipment, which involves safe and reliable operation and requires a high technical threshold. Baotou Kefa High pressure Technology Co., Ltd. was established more than 20 years of professional focus, continuous innovation, the use of military technology advantages, R & D, design and manufacture of different specifications of high pressure equipment has been exported to more than 20 countries and regions, reliable quality, stable performance, widely praised by customers at home and abroad. The company has obtained the high-tech enterprise and Inner Mongolia Enterprise Research and Development Center certificate, and obtained the export of the United States "ASME-U3" and the European Union "CE-PED" highest pressure grade certificate, is currently the only manufacturer in China and even Asia to win this honor.

Ultra-high pressure HPP machine can achieve real-time temperature control of $\geq 90^{\circ}\text{C}$ - 120°C , temperature $\leq 90^{\circ}\text{C}$ using water medium; Temperature $\geq 90^{\circ}\text{C}$ - 150°C Special medium oil is used. According to the use of the maximum pressure can be achieved 1000MPa) . The main high pressure parts are ultra-high pressure vessel (chamber) and frames (yoke) and some high pressure connection parts. The ultra-high pressure vessel of this machine adopts three layers of special steel structure heat shrinkable sleeve +wound steel belt structure to form a complete continuous body, and uses the principle of heat expansion and cold shrinkage to form uniform prestress between each layer of the vessel, so that each layer is bound to each other. Even if the inner layer is damaged by fatigue, inter-layer leakage warning will occur during the pressurization process, and the collapse of the whole vessel will not occur. This three-layer hot-jacketed structure +wound steel belt structure

ensures safe and reliable operation of the vessel under high pressure. At the same time, the composite structure of this ultra-high pressure vessel also has the function of repairable reuse, which greatly saves the cost of replacing the entire vessel. The frame adopts high-strength steel plate composite lamination superposition+wound steel belt combination structure , according to the safety design of more than 3 times the pressure capacity, to meet the ultra-high pressure vessel to withstand the axial binding force during the pressurization process, and the real-time deformation warning of the pressure frame is installed to ensure the safe and reliable operation. Other high pressure connection valves such as three-way, four-way, check valve, pressure relief valve using the company's unique technology design to ensure long-term safe and reliable operation. Automatic control using PLC programmable program design, can automatically control the equipment pressurization, pressure relief and vessel plug automatic opening and closing, to realize the processing of pressure, temperature, holding time freely setting and data recording, and the printing output, remote monitoring, fault diagnosis and other functions. The pressure gauge and the high pressure sensor detected by the third party work together to display the pressure to ensure the accuracy of the pressure. The program design presets the automatic relief protection of overpressure overload and sudden operation power failure to ensure the safety protection of the operation of the ultra-high pressure equipment. The equipment is equipped with visual stainless steel protective cover to further strengthen the safety protection of ultra-high pressure equipment and provide a safety barrier for long-term operation of the equipment. The equipment has no emission of three wastes and belongs to the high-tech green technology of low carbon, environmental protection and energy saving.

三、 Part of foreign customers to visit the company

Our different specifications HPP machines have been exported to more than 20 countries and regions, and only in Thailand there are more than 20 sets of different specifications HPP machines.





四、 The company provides the main series of different specifications of HPP machines as follows:

1, Small experimental type , Vessel Volume : 3-15 liters (HPP : 600MPa/3-15L, internal diameter is 130-200 mm, 3-15L specifications are mainly 3L, 5L, 10L and 15L; Length 400-2000mm, Vertical or Horizontal mode).

2, Pilot production model : 30-100 liters (HPP600MPa/30-100L, inner diameter of 200-300mm, 30-100L specifications are mainly 30L, 50L, 60L and 100L; Length 1000-2000mm, Vertical or Horizontal installation mode) .

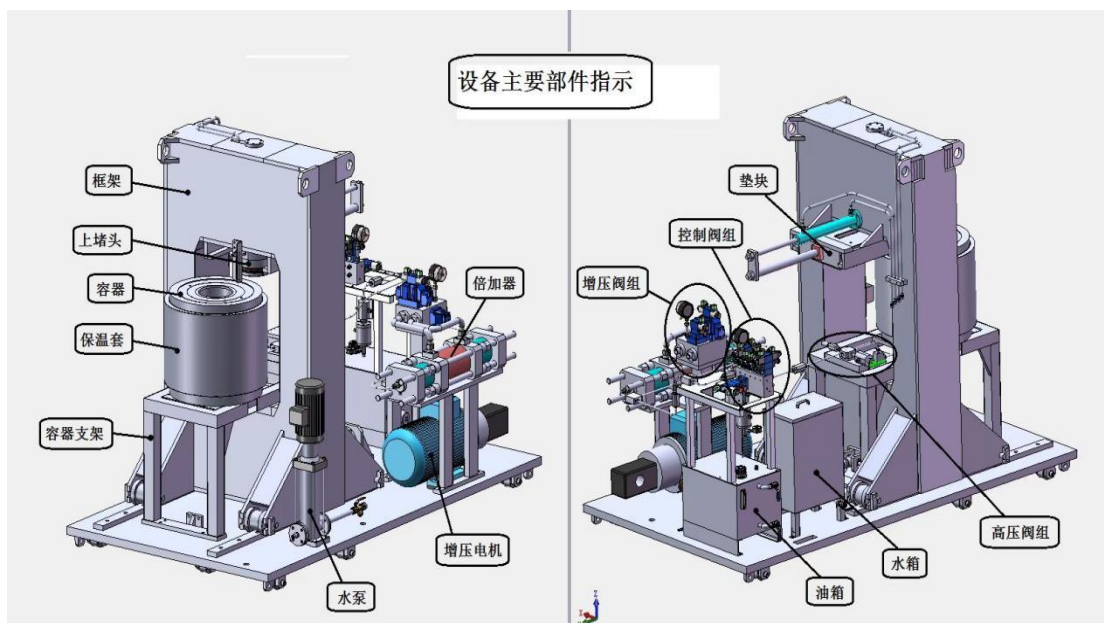
3. Production type

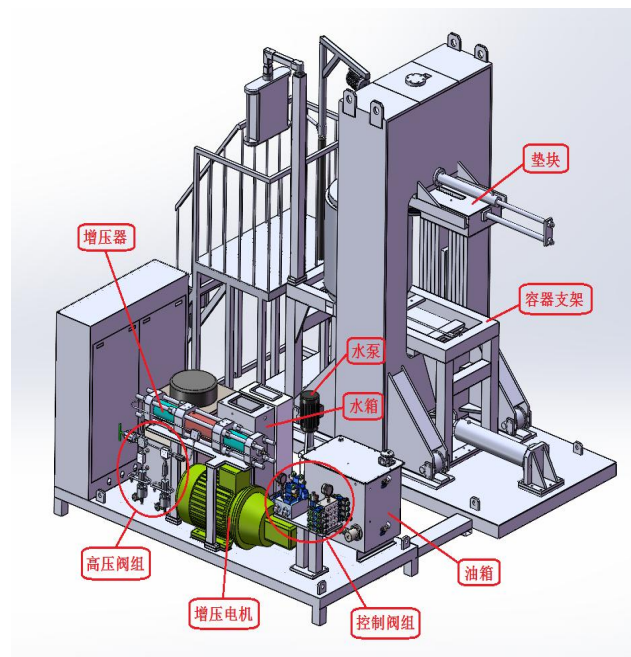
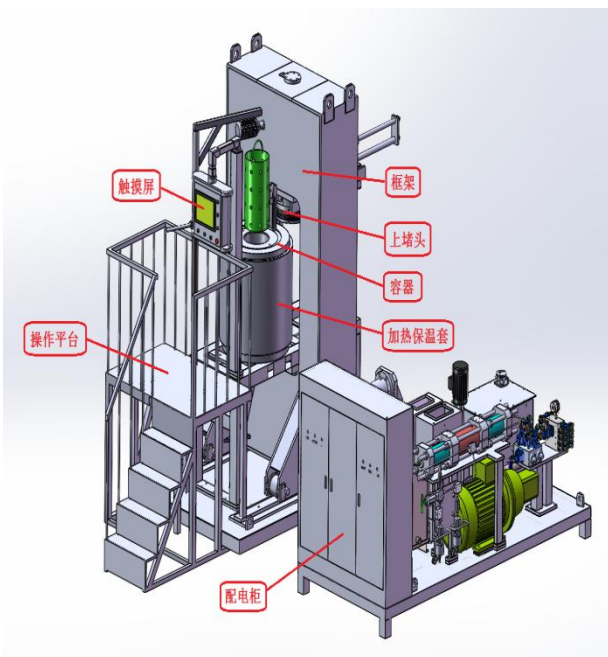
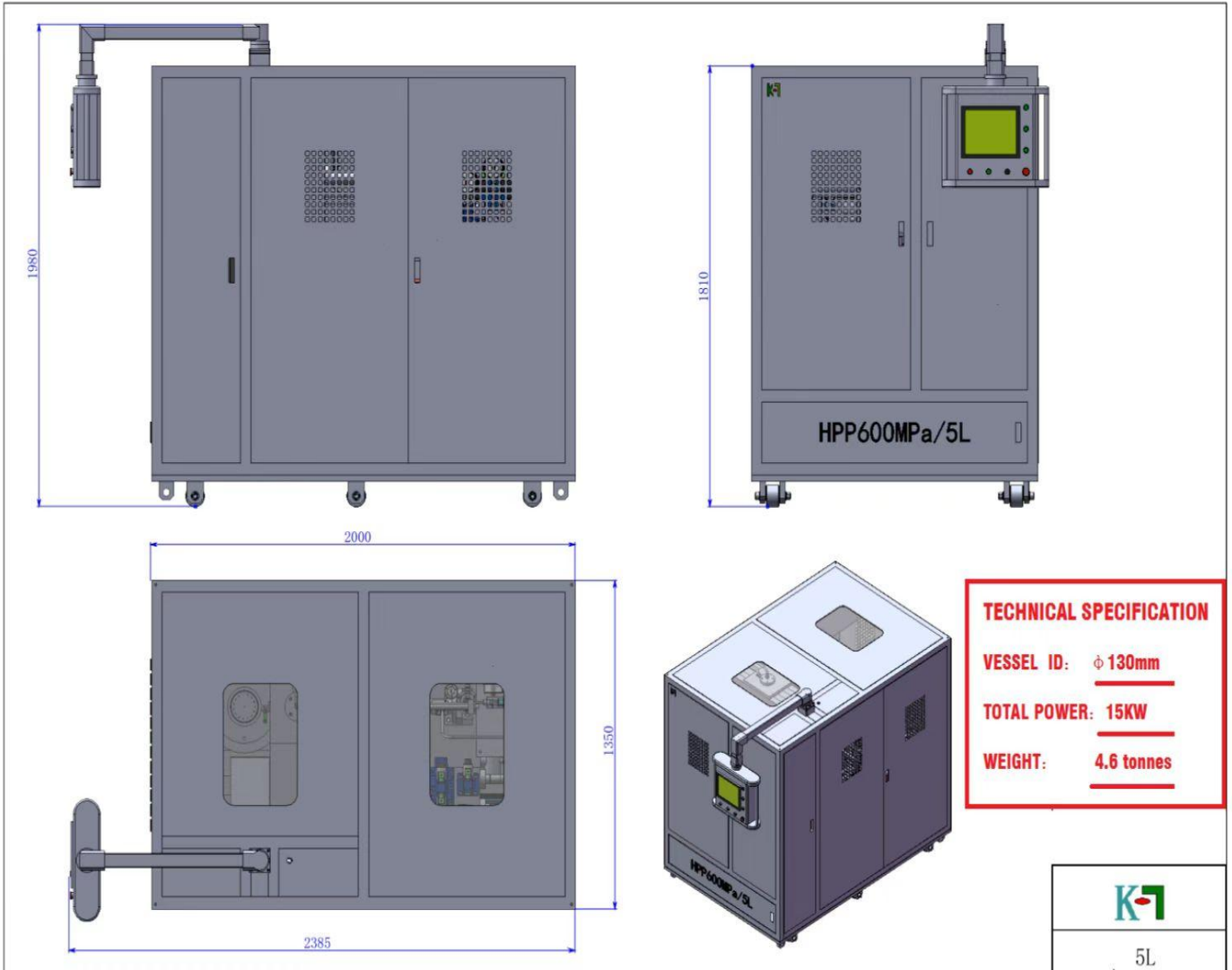
(1) Single system type 100-500L (HPP600MPa/100-500L, inner diameter 300-400mm), 200 L (inner diameter 300 mm), 300 L and 400 L (inner diameter 300-350 mm), 500L (inner diameter 400 mm), length 2000-5000mm.

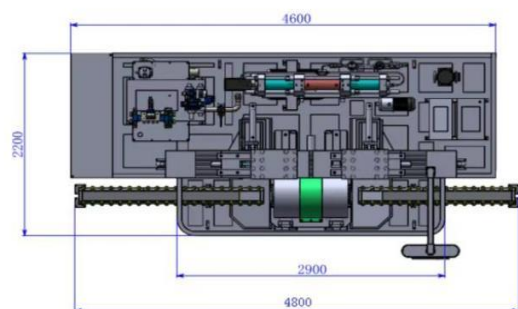
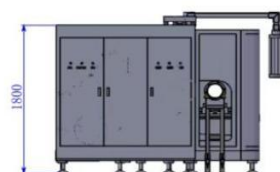
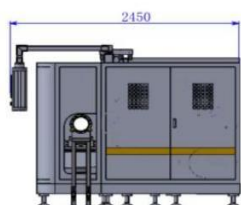
(2) Dual system 2×100 liters (inner diameter 300 mm), 2×200 liters (inner diameter 300 mm), 2 x 300 (inner diameter 300 mm), 2X400 L--2X500 L (inner diameter 400 mm). length 2000-5000mm. the best installation mode is the Horizontal mode..

五、 Layout and pictures of different specifications HPP machine

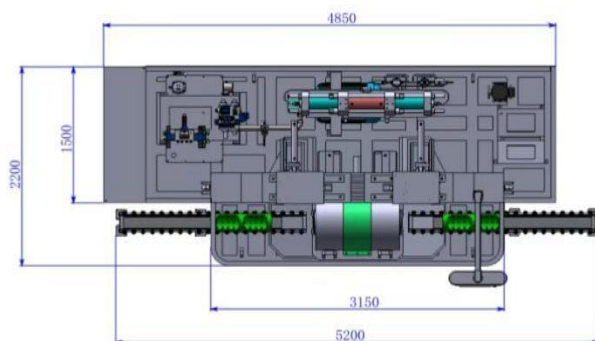
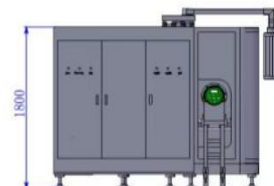
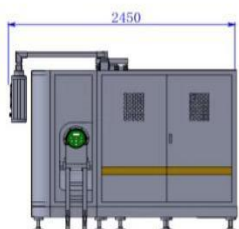
1、 Small type HPP machine(test and experimental): HPP600MPa/5-15L (installation mode : Vertical and Horizontal)







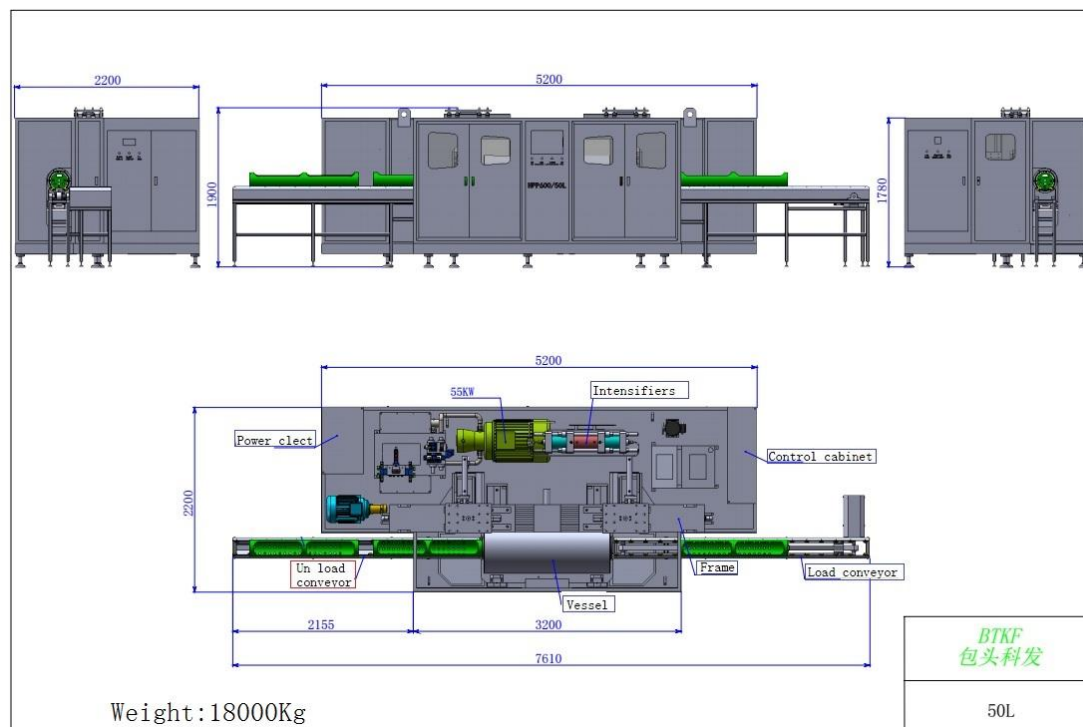
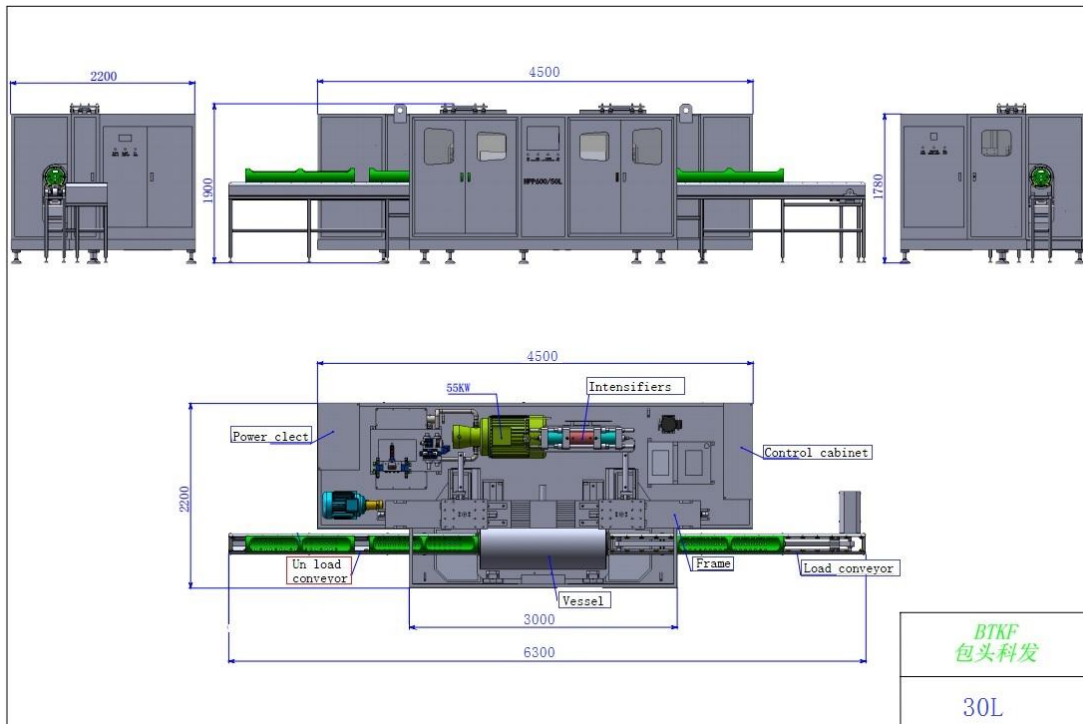
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设备总装配	
10L	
组件号	

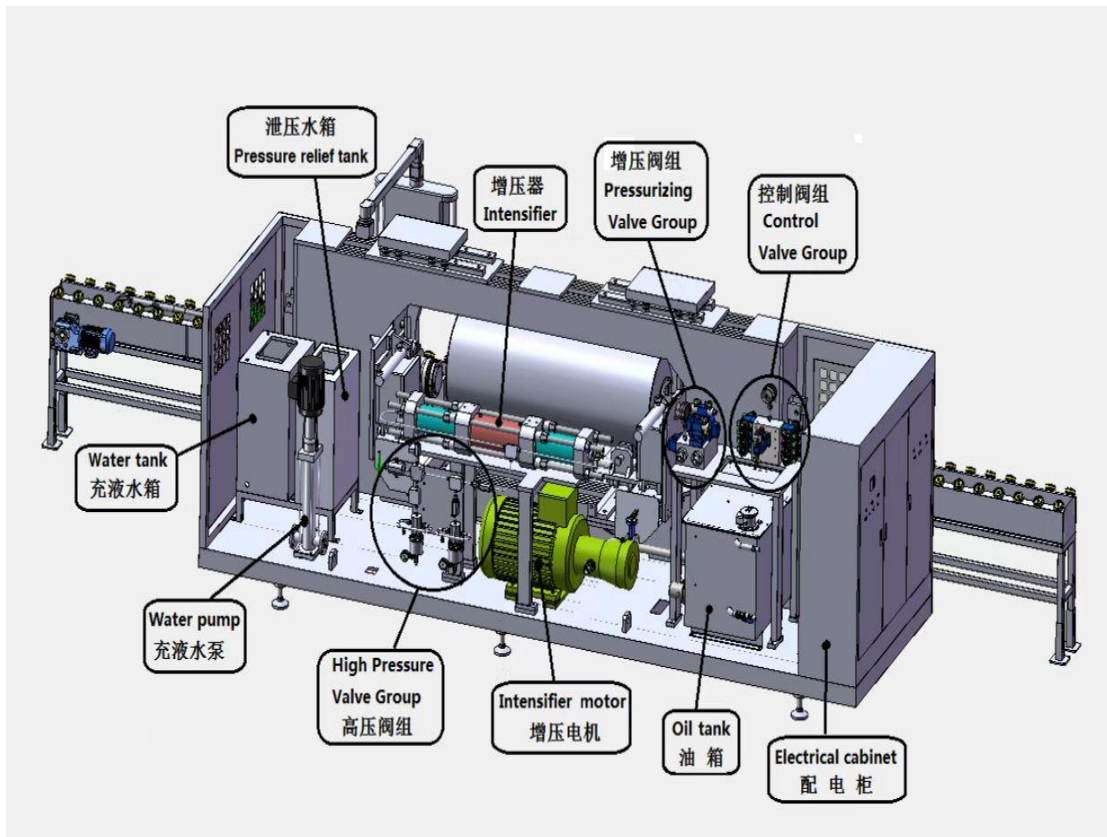
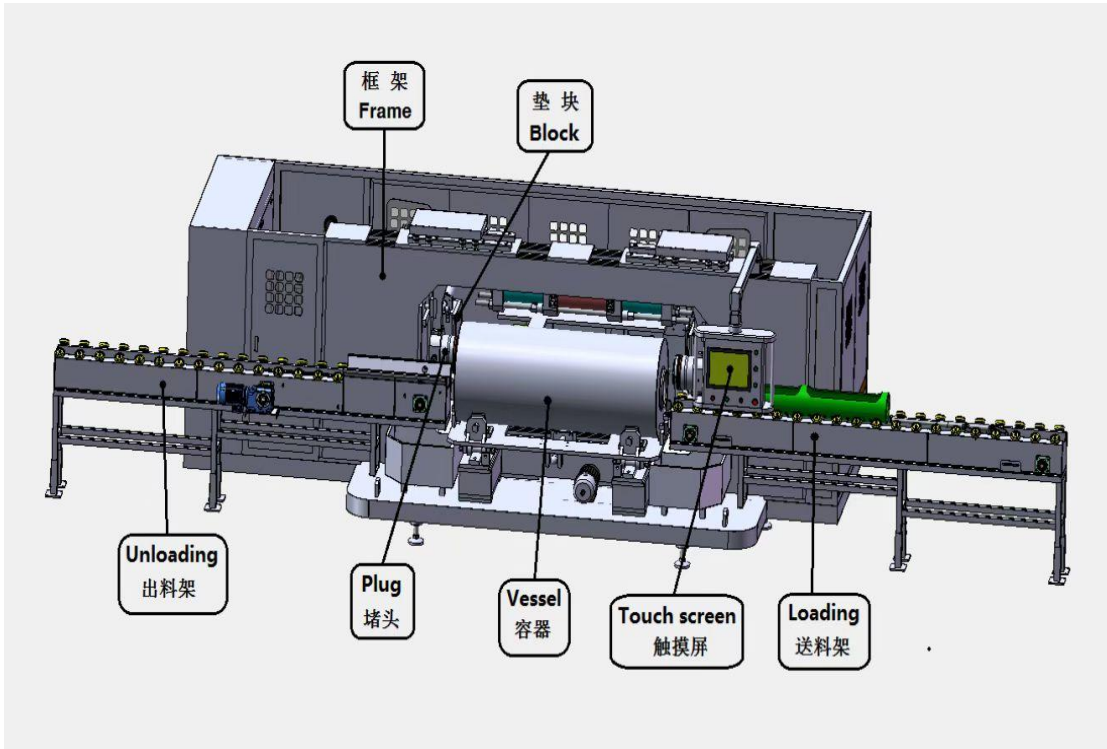


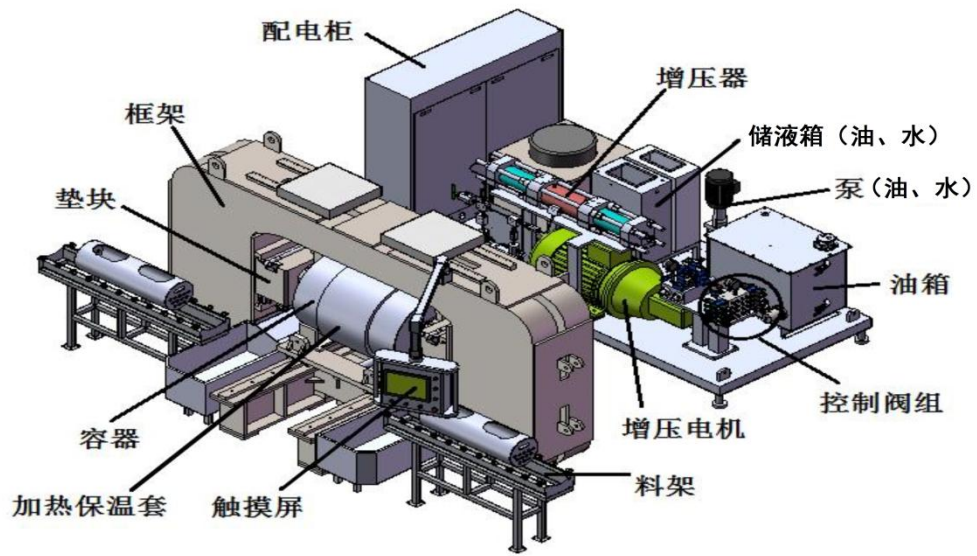
 包头科发高压科技有限公司	
设备总装配	
20L	
组件号	



2、 pilot production model: 30-50 liters: HPP600MPa/30-50L



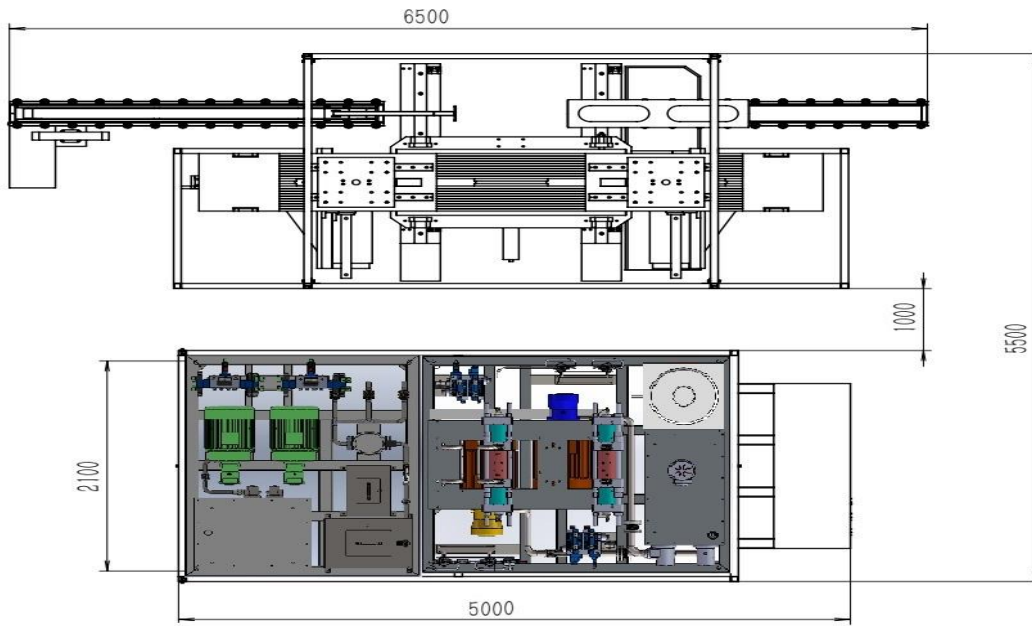






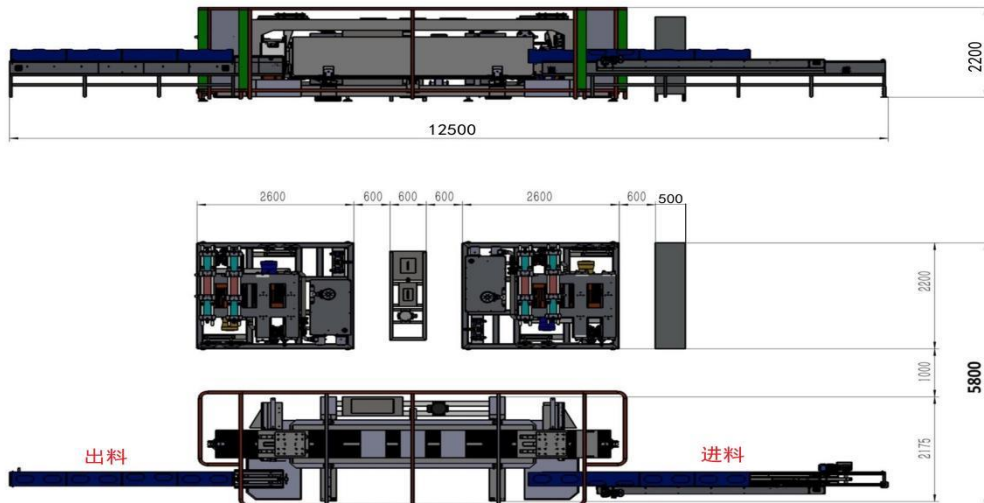


3、 Production type : Single system model:HPP600MPa/100-300L
Dual system model :HPP600MPa/2X200L-2X300L

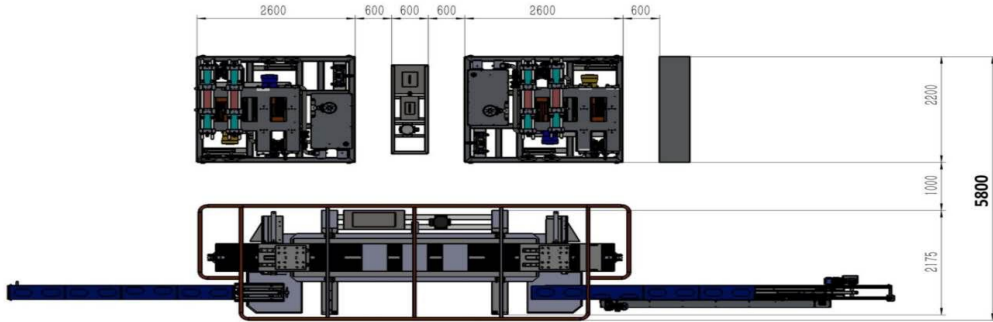
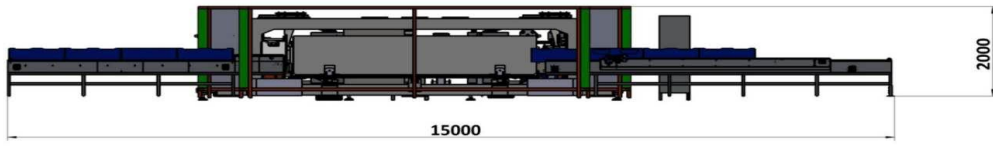


注： 设备功率：110KW
设备总重：35吨
设备高度：1900
设备周围需要提供动力电源、水源以及地面排水沟

100L 设备

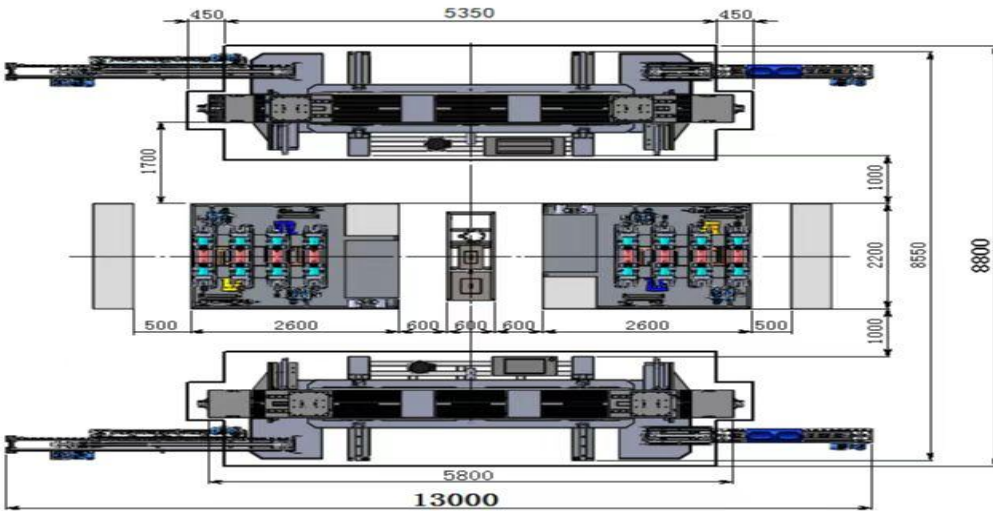


200L



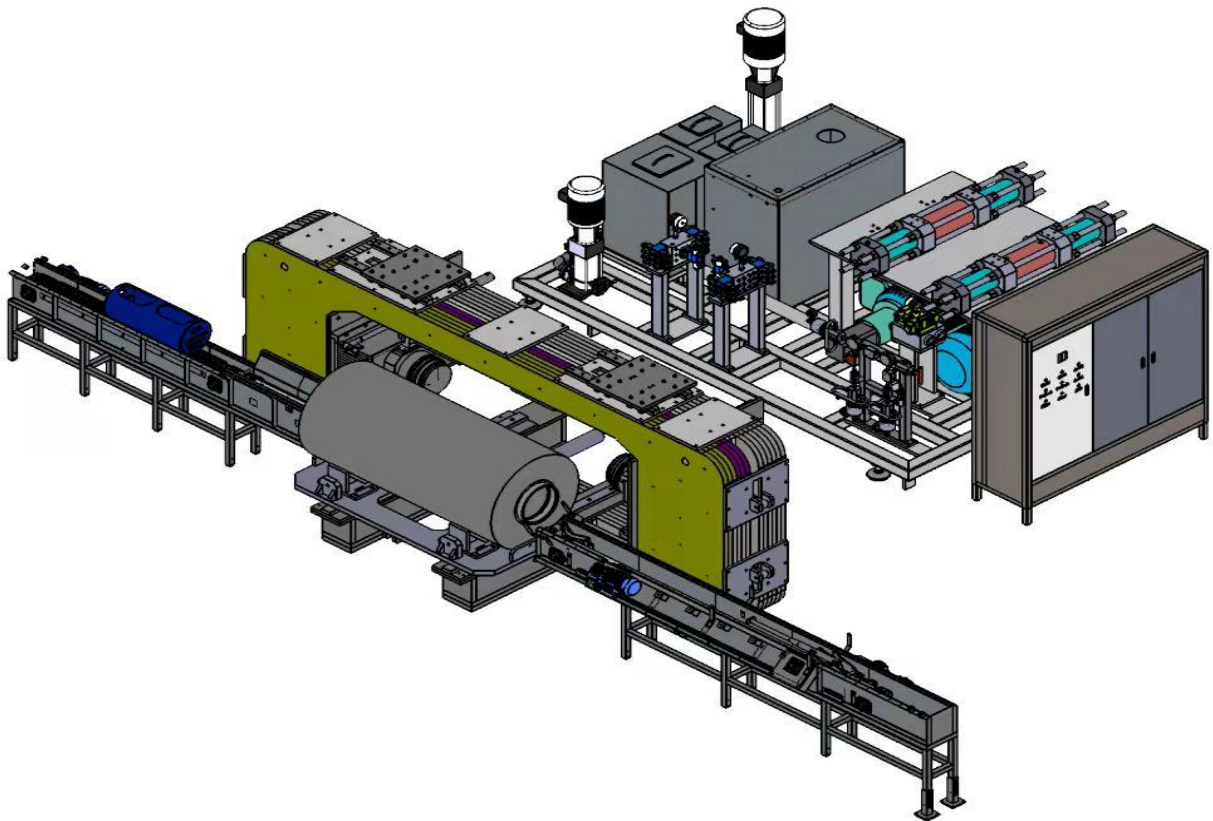
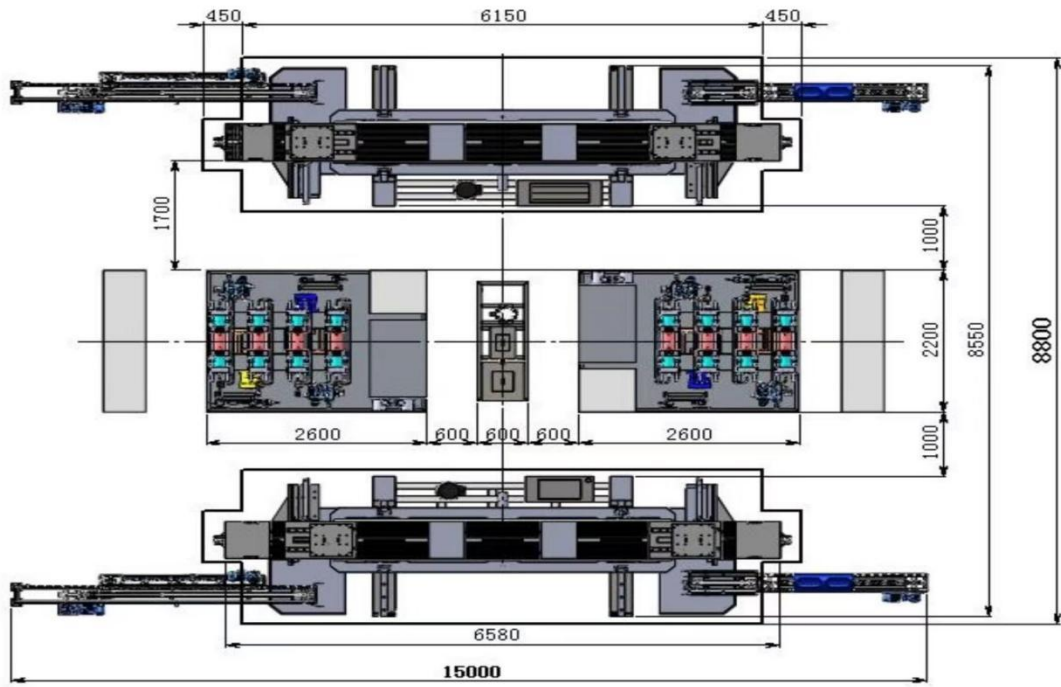
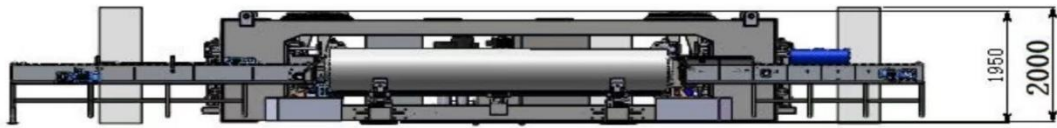
1.VESSEL INNER DIAMETER:300mm;
 2.POWER:220KW;
 3.WEIGHT:53T.

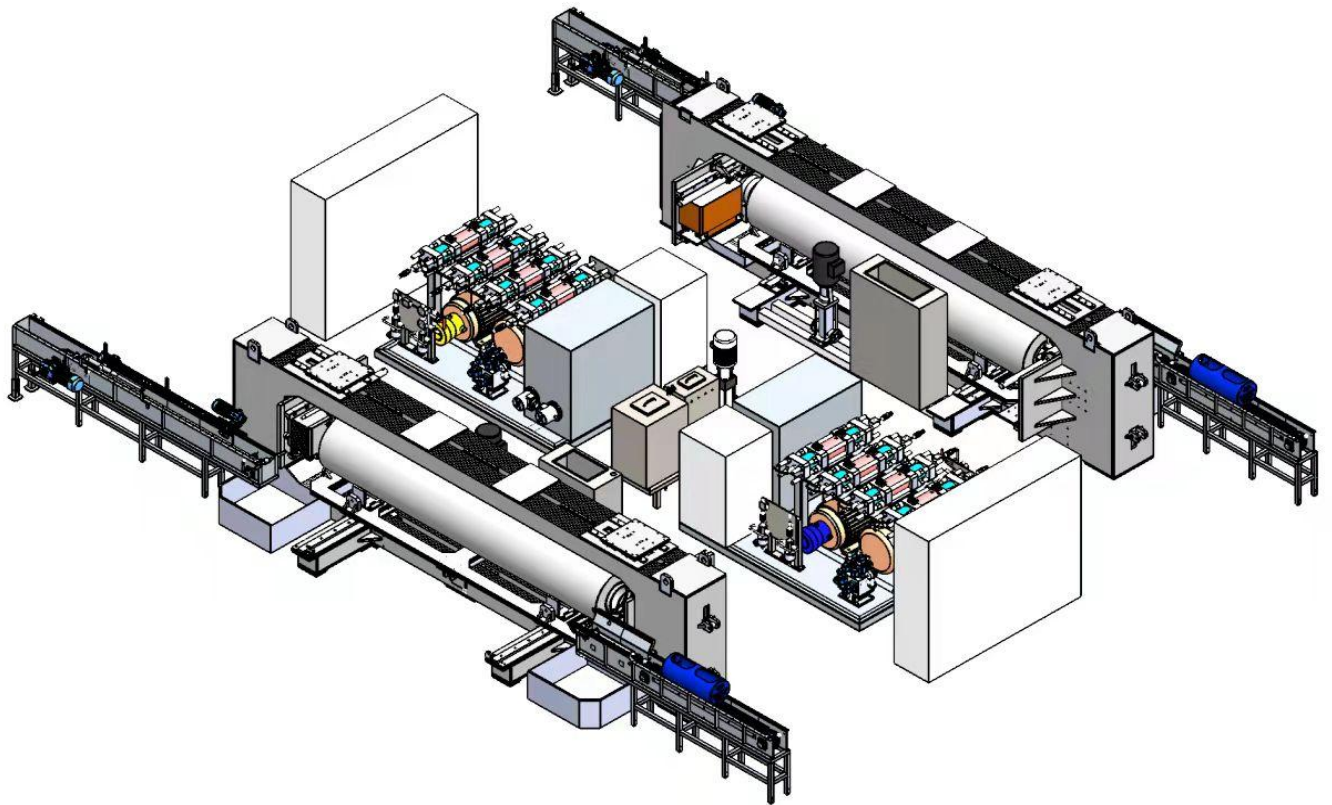
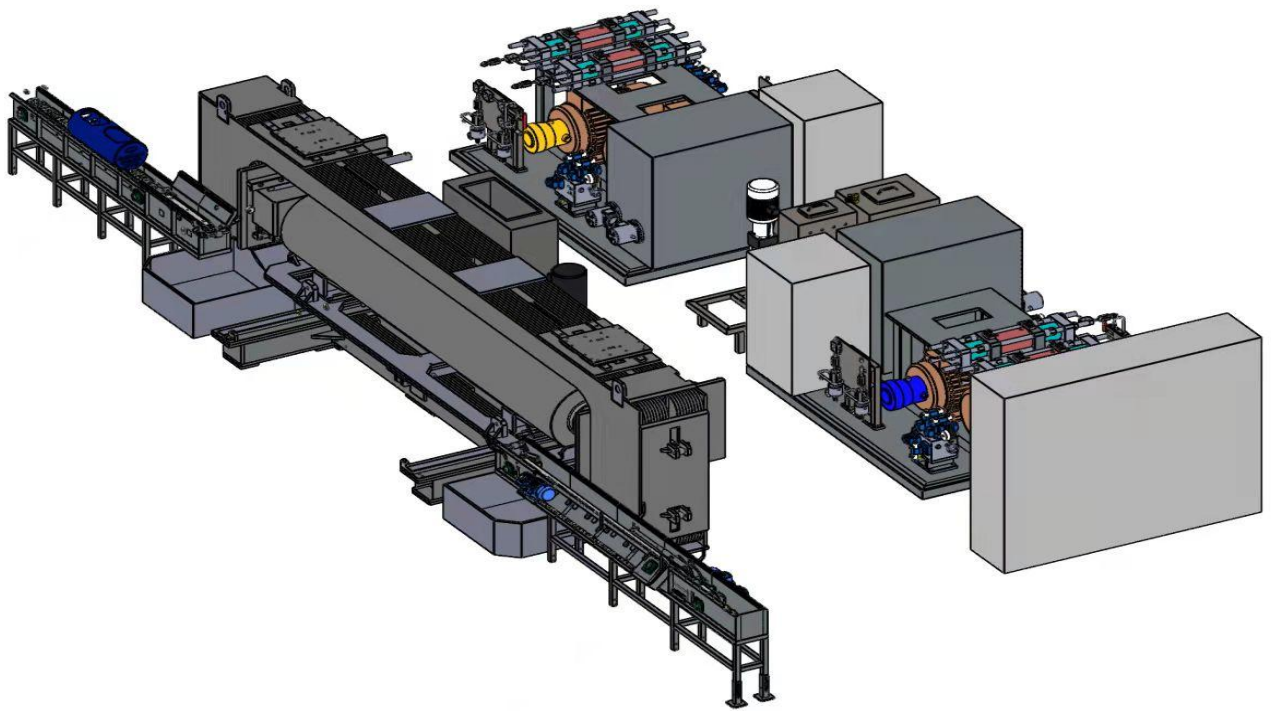
300L



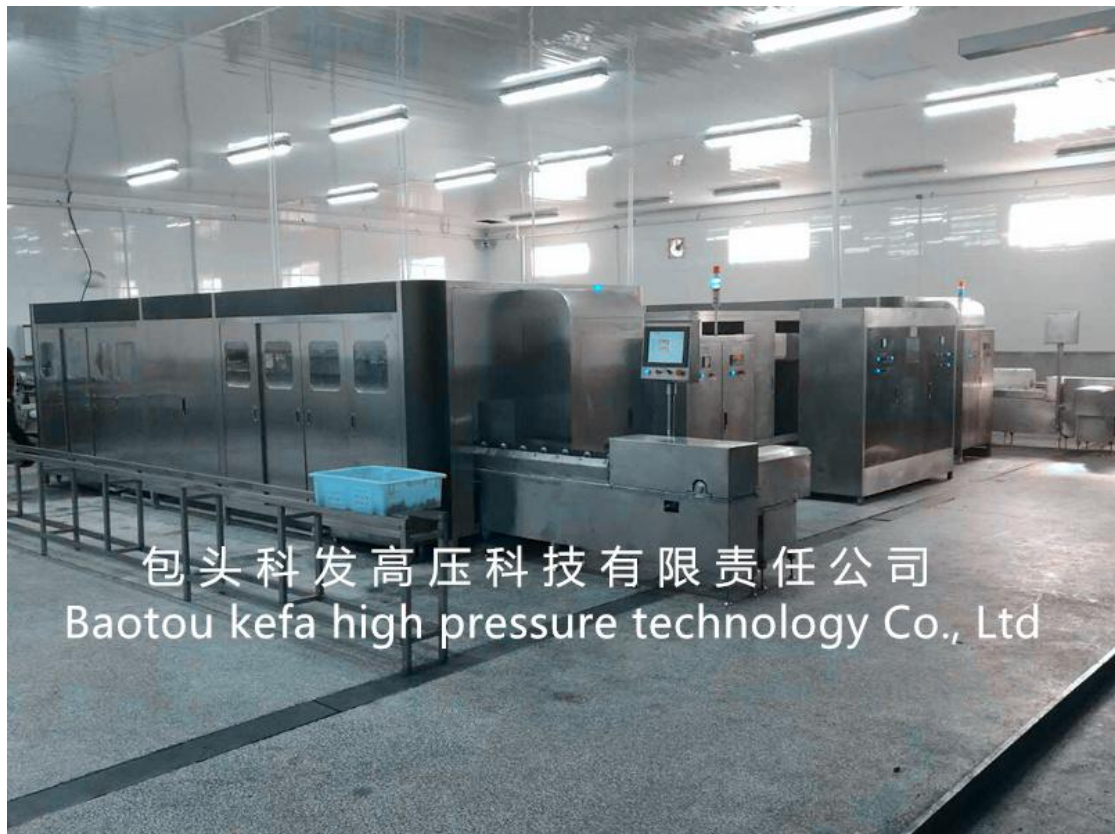
1.VESSEL INNER DIAMETER:300mm;
 2.POWER:220KW;
 3.WEIGHT:88 T.

2-200L











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科发高压 (HPP)
<http://www.btkf.com>

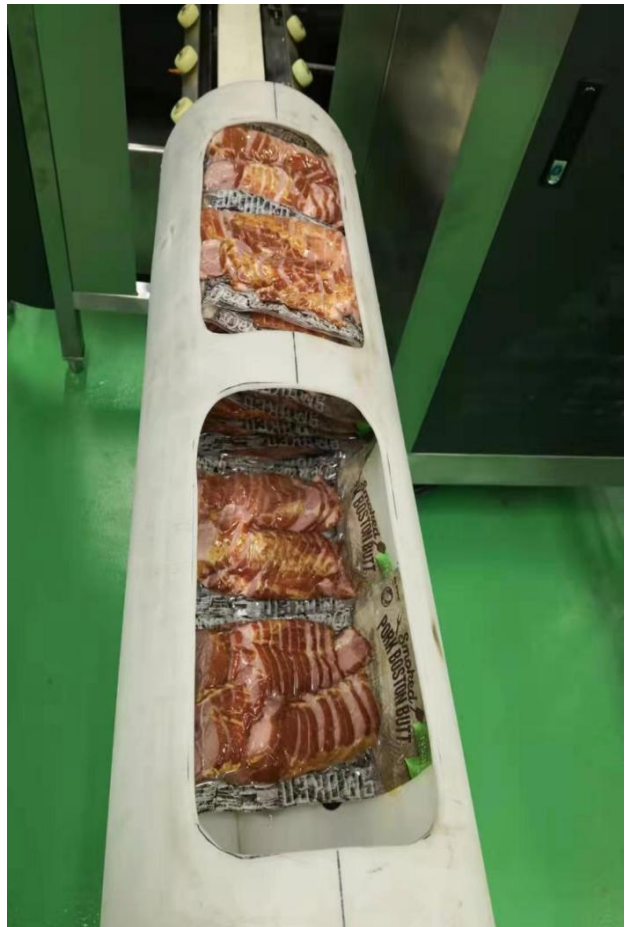
六、Customers produce all kinds of HPP juices, seafood shell and meat products and Isostatic press new material Powder metallurgy, ceramics and solid state electrical core materials.















Installation 7 sets of Dual system 2X300LHPP machine for the continuous increasing and expanding production capacity in one customer's factory

地址：包头稀土高新区阿拉坦汗大街19号，Tel/Fax: 0086-472-6868992， Website: <http://www.btkf.com>

Address: No19, big street, Alatanhan, Rare-Earth Hi-Tech Product Open Zone, Baotou, Inner Mongolia, China.