



## HANGZHOU SUTUAN MACHINERY CO.,LTD

Add: Wuli Bridge, Xindeng Town, Fuyang District,  
Hangzhou City, Zhejiang Province, China 311404

Tel: +86 571 632523666

Fax: +86 571 63253678

Whatsapp/Wechat: +86 13777358696

Email: [info@sutuanmachinery.com](mailto:info@sutuanmachinery.com) [www.sutuanmachinery.com](http://www.sutuanmachinery.com)



## HANGZHOU SUTUAN MACHINERY CO.,LTD

Professional EPS/EPP/ETPU Machinery Manufacture

# CONTENT

## Company Profiles

|  |    |
|--|----|
| Company Profiles   | 01 |
| Enterprise Culture                                       | 02 |
| Application Area   | 03 |
| High-end EPS 1200 Pre-expander                           | 04 |
| EPS Single Minute Mould Change Series                    | 06 |
| EPP/EPS Dual-use Single Mould Change Series              | 08 |
| EPP Efficient High-end Single Minute Mould Change Series | 10 |
| EPS Efficient High-end Energy-Saving Series              | 12 |
| EPS 2600 Twelve Cavities Vegetable Box Special Machine   | 14 |
| EPS Efficient High-end Helmet Special Machine            | 16 |
| Automatic Central Vacuum System                          | 18 |
| Vertical Vacuum Automatic Block Moulding Machine         | 20 |
| Horizontal Vacuum Block Moulding Machine                 | 22 |
| Model Project  | 24 |
| EPP/EPS Energy-saving Sample Factory                     | 26 |
| From Materials To Assembly Lines                         | 28 |



Hangzhou Sutuan Machinery Co., Ltd. is a comprehensive entity enterprise of EPS, EPP, ETPU and other high-end intelligent plastic machines integrating R&D, production, sales and one-stop turnkey engineering services. We help foam plastic users solve systematic problems in the production line and provide a complete set of project design, rectification, upgrading, engineering installation and other operational solutions. Ensure users to achieve a small site, large capacity, less labor, low energy consumption of high-end production economic value!

Our company integrates production and research in many fields of the foam machine series, and innovates and develops all kinds of high-end models, bringing real and cost-effective plastic machine products for the majority of users.

Full-automatic EPS/EPP molding machine is designed as a universal device for one-button mold change, which is a high-tech, multifunctional and energy-saving model developed by our company. The efficiency of mold change only takes 5 minutes to complete. Built-in mold without mold frame air chamber, with its own water cooling pipe for mold cooling, without a lot of labor costs for mold and accessories installation, this machine installed heat insulation layer design, to achieve very low steam consumption!



The Sutuan spirit of "pragmatic, pioneering, innovative, persistent" is the foundation of the group culture; Enterprise slogan: "Shape the future, team first, innovation and development, return to the society" "people-oriented, cost, scale capital" "three" management philosophy leads the group to seize the opportunity of development again and again, do fine, stronger. We do not forget our original aspiration, the ideal of industrial service to the country, to "equip China, equip the world" as our own responsibility, and continue to create high-quality, internationally competitive products, service global customers!



## » Enterprise Culture

### ④ Plastic group spirit: pragmatic, pioneering, innovative, persistent

Plastic ball Machinery was founded in Hangzhou in 2015. Looking back on the brilliant history over the years, with the cooperation of the chairman and all colleagues, he has shown the unique charm of a generation of private entrepreneurs with his indomitable perseverance and courage to innovate. He takes stock of the situation, looks forward, has the courage to develop, and has the courage to innovate, leading the group to seize the opportunity of development and realize new leaps. We are immersed in the vast ocean of industrial technology, the network of development. "Sotuan" is more than just an enterprise - we have the natural trust rooted in our relatives, we take the responsibility of "serving our employees and giving back to the society", and always strive for sustainable development strategy!

### ④ Plastic group purpose: to serve the plastic industry, loyal to the team, innovation and development, return to society

According to the idea of "industry related, common development", we develop machines and equipment to adapt to the needs of different industries, which meet the practical needs of many important industrial fields at present, and also conform to the development direction of future industry.

### ④ Mission: Shaping the future, team first, plastic group manufacturing, equipment world

With energy-saving and innovative driving solutions and related technologies, it has made outstanding contributions to promoting global sustainable development and environmental protection, and created competitive advantages for customers.

### ④ "Three" management: people, cost, scale capital

Strong cost consciousness and persistent pursuit of technological innovation from the perspective of customers have been integrated into our daily product research and development process. We actively explore and strive to improve their own efficiency at the same time, but also for customers to create with The Times, more cost-effective solutions, in order to improve their market competitiveness. This has enabled us to maintain a steady growth momentum through the vicissitudes of The Times and the ups and downs of the market over the years, and continue to consolidate our position as an industry leader.

### ④ Quality policy: high quality and efficiency, excellence, sincere service, reputation worldwide

We have established a perfect product quality assurance system, and set strict quality control measures in each business process and different nodes, covering every link from raw material procurement, processing, assembly, to the final debugging of products. After the product delivery and operation, we also provide customers with perfect after-sales service, to ensure that customers can be the first time to get support and response.

## » Application Area



### Auto parts:

door lining block,  
bumper cushion block,  
carpet pad block,  
tool box,



### Sporting Goods:

water ski,  
camping blanket,  
surfboard,  
gymnastics blanket,



### Protective Packaging:

Protective packaging:  
Cameras,  
mainly used in computers,  
medical equipment,



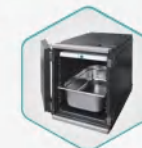
### construction:

Building formwork,  
floor paving material,  
roof lining,  
floor heating system,



### Food Protective Packaging:

dish,  
box microwave tableware,  
meat packaging,  
disposable tableware



### insulation:

hot water pipe,  
air conditioning pipe,  
storage room insulation,  
cooler insulation material



### Military Industry:

gasket,  
fender material,  
shockproof cushion,  
greenhouse insulation blanket,



### Other:

electrical packaging,  
suitcase lining,  
mold import,  
wvcstructural parts

# High-end eps 1200 Pre-expander

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## The main features

- ⚙️ Programmable control and touch screen control, automatic feeding, automatic electrical calculation, automatic control of the temperature and pressure of the chamber, automatic induction material measurement. High precision measurement system to ensure accurate feeding; The chamber body is made of stainless steel plate with tight structure, high quality closed constant pressure expand, high thermal efficiency, energy saving about 65% than continuous Pre-expander machine;
- ⚙️ High precision Japan stem pressure reducing valve and German proportional valve to control the temperature and pressure of the chamber body, electrical components, pneumatic components, etc. are used at internal and abroad famous brands, so as to ensure the stability of the machine, reliability, and long service life;
- ⚙️ The vibration level sensor imported from Korea is used to control the capacity of expand material, so that the density of expand is consistent;
- ⚙️ Automatic discharge using all aluminum alloy plate finishing bottom discharge mode, thus improving the discharge speed, discharge is very dry and static.
- ⚙️ The Fluidized bed Drier system is made of 304 stainless steel.

## Equipment parameters

| 型号<br>Model                      |                                | EPS-500ST  | EPS-700ST  | EPS-900ST  | EPS-1200ST   |            |
|----------------------------------|--------------------------------|--|--|--|--|------------|
| 参数<br>Parameter                  | 单位<br>Unit                     |  |  |  |  |            |
| 发料桶体<br>Feed Barrel Body         | 桶体直径<br>Barrel body diameter   | mm   | Φ500   | Φ700   | Φ900   | Φ1200      |
|                                  | 桶体高度<br>Height of barrel       | mm   | 1094   | 1294   | 1394   | 1594       |
|                                  | 桶体体积<br>Volume of barrel       | m <sup>3</sup>   | 1.0  | 1.2  | 1.4  | 1.6        |
|                                  | 有效体积<br>Effective volume       | m <sup>3</sup>   | 0.6  | 0.85   | 1.05   | 1.25       |
| 蒸汽<br>Steam                      | 蒸汽入口<br>Inlet of steam         | DN   | DN25   | Dn40   | Dn50   | Dn65       |
|                                  | 进口压力<br>Pressure of entry      | MPa  | 0.6-0.8MPa   | 0.6-0.8MPa   | 0.6-0.8MPa   | 0.6-0.8MPa |
| 压缩气<br>Compressed Gas            | 空气入口<br>Inlet of air           | DN   | DN40   | DN40   | DN40   | DN40       |
|                                  | 进口压力<br>Pressure of entry      | MPa  | 0.6-0.8MPa   | 0.6-0.8MPa   | 0.6-0.8MPa   | 0.6-0.8MPa |
| 排污<br>Sewage                     | 排污口<br>Sewage discharge outlet | DN   | DN100  | DN100  | DN100  | DN100      |
|                                  | 冷凝水<br>Condensed water         | DN   | DN100  | DN100  | DN100  | DN100      |
| 生产效率<br>Efficiency of production | g/l<br>kg/h                    | 15g/l 360kg/h<br>18g/l 430kg/h<br>25g/l 600kg/h<br>32g/l 680kg/h | 12g/l 330kg/h<br>18g/550kg/h<br>25g/l 770kg/h<br>32g/l 850kg/h | 12g/l 300kg/h<br>15g/l 390kg/h<br>20g/l 520kg/h<br>30g/l 640kg/h | 12g/l 530kg/h<br>15g/l 670kg/h<br>20g/l 1120kg/h<br>30g/l 1220kg/h |            |
| 送料管<br>Feed pipe                 | mm                             | Φ200mm   | Φ200mm   | Φ200mm   | Φ200mm   |            |
| 装机功率<br>Installed power          | kW                             | 13.2KW   | 14KW   | 18KW   | 20.1Kw   |            |
| 发泡密度<br>Density of foam          | g/l                            | 10-70g/l   | 10-70g/l   | 10-50g/l   | 12-30g/l   |            |
| 精度<br>precision                  |                                | ± %1   | ± %1   | ± %1   | ± %1   |            |
| 外形尺寸<br>Overall dimensions       | mm                             | 6080×2100×3800   | 6780×2500×4000   | 6980×2700×4200   | 7380×3000×4500   |            |
| 机器重量<br>Weight of machine        | kg                             | 1800   | 2200   | 3200   | 4200   |            |



## EPS Single Minute Mould Change Series

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### Hydraulic System

- Famous brand hydraulic components, differential pressure system design, can achieve high speed, low noise operation, the fastest opening and closing mold speed can reach 350mm/s, can achieve high speed, efficient and stable operation;
- Two-point opening and closing mold, the latest mold locking mechanism technology, stable mold locking pressure, to ensure no leakage during production, effectively improve the utilization rate of energy consumption (steam).

### Pipeline System

- The inlet, outlet and diameter of each piping system are optimized to minimize the waste of energy consumption and improve the response speed;
- The design of cooling water pipe makes water cooling fast and efficient; Mold cavity copper tube ring design, so that the product contact surface more extensive, more sufficient cooling, product surface more flat

### Molding System

- The application of electric digital proportional valve: Using imported electric digital proportional valve plus linear position sensor, efficient and accurate control Angle seat valve proportional opening, combined with digital pressure sensor, so that the cavity pressure can line character stability, changed the traditional equipment of analog control valve switch two kinds of action, and to import valve to ensure the stability of product quality, At the same time effectively save steam and air energy consumption;
- The latest heating system bypass pipeline design of EPS shape molding machine can effectively reduce the shape time and steam energy consumption.

### Equipment parameters

| 型号 Model                     |                       | EPS-14001200STYJ | EPS-17001400STYJ | EPS-19001450STYJ |
|------------------------------|-----------------------|------------------|------------------|------------------|
| 参数 Parameter                 | 单位 Unit               |                  |                  |                  |
| 外形尺寸 Overall Dimensions      | mm                    | 5363×3310×4852   | 5363×3610×5152   | 5363×3710×5352   |
| 模面尺寸 Die Surface Size        | mm                    | 1400×1200        | 1700×1400        | 1900×1450        |
| 制品高度 Height Of Product       | mm                    | 350              | 350              | 350              |
| 开合模距离 Mould Opening Distance | mm                    | 1200             | 1200             | 1200             |
| 导柱 Guide Post                | 直径 Diameter           | mm               | 80               | 100              |
|                              | 数量 Number             | 支                | 4                | 4                |
| 油缸 Oil Cylinder              | 内径 Inner Diameter     | φ                | 80               | 100              |
|                              | 行程 Stroke             | mm               | 1200             | 1200             |
|                              | 锁模力 Die Locking Force | bar              | 18086            | 28260            |
| 料桶 Charging Basket           | 容积 Volume             | L                | 145              | 145              |
|                              | 数量 Number             | 个                | 2                | 2                |
| 蒸汽 Steam                     | 进口 Import             | DN               | 100              | 100              |
|                              | 模具进口 Import Of Mould  | DN               | 4~5              | 4~5              |
|                              | 压力 Pressure           | bar              | 4~5              | 5~6              |
| 冷却 Cooling                   | 进口 Import             | DN               | 80               | 80               |
|                              | 模具进口 Entrance Of Mold | DN               | 25×2             | 25×2             |
|                              | 压力 Pressure           | bar              | 4-4.5            | 4-4.5            |
| 真空 Vacuum                    | 接口 Interface          |                  | 100              | 125              |
|                              | 排污口 Outfall           | L/h              | 100              | 100              |
| 空气 Air                       | 低压 Low Pressure       | 入口 Entrance      | DN               | 65               |
|                              |                       | 压力 Pressure      | bar              | 5~6              |
|                              | 高压 High Pressure      | 入口 Entrance      | DN               | 50               |
|                              |                       | 压力 Pressure      | bar              | 6~7              |
| 液压 Hydraulic                 | 电机 Motor              | Kw               | 7.5              | 11               |
|                              | 油箱容积 Tank Capacity    | L                | 400              | 400              |

# EPP/EPS Dual-use Single Minute Mould Change Series

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## Hydraulic System

- China adopts well-known brand hydraulic components, differential pressure system design, can achieve high speed, low noise operation, the fastest opening and closing mold speed can reach 350mm/ second, can achieve high speed, efficient and stable operation;
- Two-point opening and closing mold, the latest mold locking mechanism technology, stable mold locking pressure, to ensure no leakage during production, effectively improve the utilization rate of energy consumption (steam).

## Pipeline System

- The inlet, outlet and diameter of each piping system are optimized to minimize the waste of energy consumption and improve the response speed;
- Cooling water pipe design, make water cooling fast and efficient: mold cavity copper pipe ring design, make product contact surface more extensive, cooling more fully, product surface more smooth.

## Mold Replacement System

- One-button mold change system is optimized and upgraded on the basis of rapid mold change system, so as to achieve faster mold change, mold change time can reach about 5 minutes, better reduce labor costs, mold change efficiency, but also can realize no one to change the mold function.

## Control System

- Siemens intelligent control system, humanized Windows embedded system operating interface, so that the operation is more simple and intelligent;
- Adopt imported electric proportional valve plus linear position sensor and pressure sensor control mode, perfect coordination control system, so that feeding, heating, blowing, water cooling more accurate, stable, reliable and efficient;
- The latest production molding technology, make it convenient, efficient control equipment, effectively improve production efficiency.

## Equipment parameters

| 型号 Model                     |                       |             | EPS/EPP-14001200STLY | EPS/EPP-17001400STLY | EPS/EPP-19001450STLY |     |
|------------------------------|-----------------------|-------------|----------------------|----------------------|----------------------|-----|
| 参数 Parameter                 | 单位 Unit               |             |                      |                      |                      |     |
| 外形尺寸 Overall Dimensions      | mm                    |             | 5363×3310×4852       | 5363×3610×5152       | 5363×3710×5352       |     |
| 模面尺寸 Die Surface Size        | mm                    |             | 1400×1200            | 1700×1400            | 1900×1450            |     |
| 制品高度 Height Of Product       | mm                    |             | 350                  | 350                  | 350                  |     |
| 开合模距离 Mould Opening Distance | mm                    |             | 1200                 | 1200                 | 1200                 |     |
| 导柱 Guide Post                | 直径 Diameter           | mm          | 80                   | 100                  | 100                  |     |
|                              | 数量 Number             | 支           | 4                    | 4                    | 4                    |     |
| 油缸 Oil Cylinder              | 内径 Inner Diameter     | φ           | 80                   | 100                  | 125                  |     |
|                              | 行程 Stroke             | mm          | 1200                 | 1200                 | 1200                 |     |
|                              | 锁模力 Die Locking Force | mm          | 18086                | 28260                | 44156                |     |
| 料桶 Charging Basket           | 容积 Volume             | L           | 145                  | 145                  | 145                  |     |
|                              | 数量 Number             | 个           | 2                    | 2                    | 2                    |     |
| 蒸汽 Steam                     | 进口 Import             | DN          | 100                  | 100                  | 100                  |     |
|                              | 模具进口 Import Of Mould  | DN          | 4~5                  | 4~5                  | 4~5                  |     |
|                              | 压力 Pressure           | bar         | 4~5                  | 5~6                  | 6~7                  |     |
| 冷却 Cooling                   | 进口 Import             | DN          | 80                   | 80                   | 80                   |     |
|                              | 模具进口 Entrance Of Mold | DN          | 25×2                 | 25×2                 | 52×4                 |     |
|                              | 压力 Pressure           | bar         | 4~4.5                | 4~4.5                | 4~4.5                |     |
| 真空 Vacuum                    | 接口 Interface          |             | 100                  | 125                  | 125                  |     |
|                              | 排污口 Outfall           | L/h         | 100                  | 100                  | 100                  |     |
| 空气 Air                       | 低压 Low Pressure       | 入口 Entrance | DN                   | 65                   | 65                   | 65  |
|                              |                       | 压力 Pressure | bar                  | 5~6                  | 5~6                  | 5~6 |
|                              | 高压 High Pressure      | 入口 Entrance | DN                   | 50                   | 50                   | 50  |
|                              |                       | 压力 Pressure | bar                  | 6~7                  | 6~7                  | 6~7 |
| 液压 Hydraulic                 | 电机 Motor              | Kw          | 7.5                  | 11                   | 11                   |     |
|                              | 油箱容积 Tank Capacity    | L           | 400                  | 400                  | 400                  |     |



# EPP Efficient High-end Single Minute Mould Change Series

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## Hydraulic System

- ⚙️ Famous brand hydraulic components, differential pressure system design, can achieve high speed, low noise operation, the fastest opening and closing mold speed can reach 350mm/s, can achieve high speed, efficient and stable operation;
- ⚙️ Two-point opening and closing mold, the latest mold locking mechanism technology, stable mold locking pressure, to ensure no leakage during production, effectively improve the utilization rate of energy consumption (steam).

## Control System

- ⚙️ Siemens intelligent control system, humanized Windows embedded system operating interface, so that the operation more simple, intelligent;
- ⚙️ Adopt imported electropneumatic proportional valve plus linear position sensor and pressure sensor control mode, perfect coordination control system, so that feeding, heating, blowing, water cooling more accurate, stable, reliable and efficient;
- ⚙️ The latest production molding technology, make it convenient, efficient control equipment, effectively improve production efficiency.

## Pipeline System

- ⚙️ The inlet, outlet and diameter of the piping system are optimized to minimize the waste of energy consumption and improve the response speed. The design of cooling water pipe makes water cooling fast and efficient;
- ⚙️ Mold cavity copper tube ring design, so that the product contact surface is more extensive, cooling more fully, the product surface is more smooth.

## Equipment parameters

| 型号 Model                     |                       | EPP-14001200STJN | EPP-17001400STJN | EPP-19001450STJN |
|------------------------------|-----------------------|------------------|------------------|------------------|
| 参数 Parameter                 | 单位 Unit               |                  |                  |                  |
| 外形尺寸 Overall Dimensions      | mm                    | 5363×3310×4852   | 5363×3610×5152   | 5363×3710×5352   |
| 模面尺寸 Die Surface Size        | mm                    | 1400×1200        | 1700×1400        | 1900×1450        |
| 制品高度 Height Of Product       | mm                    | 350              | 350              | 350              |
| 开合模距离 Mould Opening Distance | mm                    | 1200             | 1200             | 1200             |
| 导柱 Guide Post                | 直径 Diameter           | mm               | 80               | 100              |
|                              | 数量 Number             | 支                | 4                | 4                |
| 油缸 Oil Cylinder              | 内径 Inner Diameter     | φ                | 80               | 100              |
|                              | 行程 Stroke             | mm               | 1200             | 1200             |
|                              | 锁模力 Die Locking Force | bar              | 18086            | 28260            |
| 料桶 Charging Basket           | 容积 Volume             | L                | 145              | 145              |
|                              | 数量 Number             | 个                | 2                | 2                |
| 蒸汽 Steam                     | 进口 Import             | DN               | 100              | 100              |
|                              | 模具进口 Import Of Mould  | DN               | 4~5              | 4~5              |
|                              | 压力 Pressure           | bar              | 4~5              | 5~6              |
| 冷却 Cooling                   | 进口 Import             | DN               | 80               | 80               |
|                              | 模具进口 Entrance Of Mold | DN               | 25×2             | 25×2             |
|                              | 压力 Pressure           | bar              | 4~4.5            | 4~4.5            |
| 真空 Vacuum                    | 接口 Interface          |                  | 100              | 125              |
|                              | 排污口 Outfall           | L/h              | 100              | 100              |
| 空气 Air                       | 低压 Low Pressure       | 入口 Entrance      | DN               | 65               |
|                              |                       | 压力 Pressure      | bar              | 5~6              |
|                              | 高压 High Pressure      | 入口 Entrance      | DN               | 50               |
|                              |                       | 压力 Pressure      | bar              | 6~7              |
| 液压 Hydraulic                 | 电机 Motor              | Kw               | 7.5              |                  |
|                              | 油箱容积 Tank Capacity    | L                | 400              |                  |

# EPS Efficient High-end Energy-Saving Series

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## Hydraulic System

- Famous brand hydraulic components, differential pressure system design, can achieve high speed, low noise operation, the fastest opening and closing mold speed can reach 350mm/s, can achieve high speed, efficient and stable operation;
- Two-point opening and closing mold, the latest mold locking mechanism technology, stable mold locking pressure, to ensure no leakage during production, effectively improve the utilization rate of energy consumption (steam).

## Molding System

- The use of digital pressure sensor, so that the cavity pressure can line character stability, change the traditional equipment analog control valve switch two kinds of action, and to import valves to ensure the stability of product quality, while effectively save steam, air and other energy consumption;
- The latest heating system bypass pipeline design of EPS shape molding machine can effectively reduce the forming time and steam energy consumption.

## Control System

- Siemens intelligent control system, humanized Windows embedded system operating interface, so that the operation more simple, intelligent;
- Using pressure sensor control mode, perfect coordination control system, so that feeding, heating, blowing, water cooling more accurate, stable, reliable, efficient; The latest production molding technology, make it convenient, efficient control equipment, effectively improve production efficiency.

## Equipment parameters

| 型号 Model                     |                      | EPS-1200ST | EPS-1400ST | EPS-1600ST | EPS-1800ST | EPS-2000ST |
|------------------------------|----------------------|------------|------------|------------|------------|------------|
| 参数 Parameter                 | 单位 Unit              |            |            |            |            |            |
| 模具尺寸 Mould Size              | mm                   | 1200×1100  | 1400×1200  | 1600×1400  | 1800×1600  | 2000×1800  |
| 成品尺寸 Product Size            | mm                   | 1100×1000  | 1300×1100  | 1500×1300  | 1700×1500  | 1900×1700  |
| 成品高度 Finished Product Height | mm                   | 420        | 420        | 420        | 420        | 420        |
| 开模行程 Open Mold Trip          | 最大间隔 Max Interval    | mm         | 1450       | 1450       | 1450       | 1450       |
|                              | 最小间隔 Min Interval    | mm         | 150        | 150        | 150        | 150        |
| 导柱 Guide Post                | 外径 External Diameter | mm         | 80         | 80         | 100        | 100        |
|                              | 数量 Quantity          | set        | 4          | 4          | 4          | 4          |
| 油缸 Cylinder                  | 内径 Internal Diameter | mm         | 1×125      | 1×125      | 2×100      | 2×125      |
|                              | 行程 Trip              | mm         | 1250       | 1250       | 1250       | 1250       |
| 蒸汽系统 Steam System            | 主要入口 Input           | Dn         | 100        | 100        | 100        | 125        |
|                              | 模具入口 Mould Input     | qty*dn     | 4×DN50     | 4×DN50     | 4×DN50     | 4×DN50     |
|                              | 工作压力 Pressure        | kg/cm      | 3.5~5      | 3.5~5      | 3.5~5      | 3.5~5      |
| 冷却系统 Water Cooling System    | 主要入口 Input           | inch       | 65         | 65         | 65         | 100        |
|                              | 模具入口 Mould Input     | inch*qty   | 1"×4       | 1"×4       | 1"×4       | 1"×4       |
|                              | 工作压力 Pressure        | bar        | 4-6        | 4-6        | 4-6        | 4-6        |
| 压缩空气 Compressed Air          | 水温 Temperature       | °c         | 55~60      | 55~60      | 55~60      | 55~60      |
|                              | 入口口径 Input           | Dn         | 65         | 65         | 65         | 65         |
| 排污口 Sewage Outlet            | 工作压力 Pressure        | bar        | 5~6        | 5~6        | 5~6        | 5~6        |
|                              | 管径 Pipe Diameter     | 英寸 Inch    | 125        | 125        | 125        | 150        |
| 电动机 Electric Motor           | 液压器 Hydraulic        | kw         | 7.5        | 7.5        | 7.5        | 11.0       |
|                              | 入料用 Material Feeding | kw         | 2.2        | 2.2        | 2.2        | 2.2        |
| 产品尺寸 Product Size            | 长 Long               | mm         | 4700       | 4700       | 4700       | 4700       |
|                              | 宽 Wide               | mm         | 1720       | 1920       | 2130       | 2030       |
|                              | 高 High               | mm         | 3050       | 3250       | 3450       | 3550       |
| 产品重量 Product Weight          | t                    | 5.50       | 6.00       | 6.50       | 7.00       | 8.00       |



# EPS 2600 Twelve Cavities Vegetable Box Special Machine

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## Hydraulic System

- Famous brand hydraulic components, differential pressure system design, can achieve high speed, low noise operation, the fastest opening and closing mold speed can reach 350mm/s, can achieve high speed, efficient and stable operation;
- Two-point opening and closing mold, the latest mold locking mechanism technology, stable mold locking pressure, to ensure no leakage during production, effectively improve the utilization rate of energy consumption (steam).

## Control System

- Siemens intelligent control system, humanized Windows embedded system operating interface, so that the operation more simple, intelligent;
- Adopt imported electropneumatic proportional valve plus linear position sensor and pressure sensor control mode, perfect coordination control system, so that feeding, heating, blowing, water cooling more accurate, stable, reliable and efficient;
- The latest production molding technology, make it convenient, efficient control equipment, effectively improve production efficiency.

## Pipeline System

- The inlet, outlet and diameter of the piping system are optimized to minimize the waste of energy consumption and improve the response speed. The design of cooling water pipe makes water cooling fast and efficient; Mold cavity copper tube ring design, so that the product contact surface is more extensive, cooling more fully, the product surface is more smooth.
- The use of digital pressure sensor, so that the cavity pressure can line character stability, change the traditional equipment analog control valve switch two kinds of action, and to import valves to ensure the stability of product quality, while effectively save steam, air energy consumption;

## Equipment parameters

| 型号 Model                     |                       | EPS-2600ST     |         |
|------------------------------|-----------------------|----------------|---------|
| 参数 Parameter                 | 单位 Unit               |                |         |
| 外形尺寸 Overall Dimensions      | mm                    | 5500×3000×4500 |         |
| 模面尺寸 Die Surface Size        | mm                    | 2200×2100      |         |
| 制品高度 Height Of Product       | mm                    | 400            |         |
| 开合模距离 Mould Opening Distance | mm                    | 1350           |         |
| 导柱 Guide Post                | 直径 Diameter           | mm             | Φ100    |
|                              | 数量 Number             | 支              | 4       |
| 油缸 Oil Cylinder              | 内径 Inner Diameter     | φ              | 2       |
|                              | 行程 Stroke             | mm             | 1350    |
| 料桶 Charging Basket           | 容积 Volume             | L              | 110     |
|                              | 数量 Number             | 个              | 1       |
| 蒸汽 Steam                     | 进口 Import             | DN             | 125     |
|                              | 模具进口 Import Of Mould  | DN             | 50×6    |
|                              | 压力 Pressure           | bar            | 4-5     |
| 冷却 Cooling                   | 进口 Import             | DN             | 125     |
|                              | 模具进口 Entrance Of Mold | DN             | 32×6    |
|                              | 压力 Pressure           | bar            | 4-4.5   |
| 真空 Vacuum                    | 接口 Interface          |                | 150     |
|                              | 排污口 Outfall           | L/h            | 200     |
| 空气 Air                       | 低压 Low Pressure       | 入口 Entrance    | DN 100  |
|                              |                       | 压力 Pressure    | bar 4-5 |
|                              | 高压 High Pressure      | 入口 Entrance    | DN 50   |
|                              |                       | 压力 Pressure    | bar 5-6 |
| 液压 Hydraulic                 | 电机 Motor              | Kw             | 11      |
|                              | 油箱容积 Tank Capacity    | L              | 300     |

# EPS Efficient High-end Helmet Special Machine

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## Hydraulic System

- ⚙ Famous brand hydraulic components, differential pressure system design, can achieve high speed, low noise operation, the fastest opening and closing mold speed can reach 350mm/s, can achieve high speed, efficient and stable operation;
- ⚙ Two-point opening and closing mold, the latest mold locking mechanism technology, stable mold locking pressure, to ensure no leakage during production, effectively improve the utilization rate of energy consumption (steam).

## Control System

- ⚙ Siemens intelligent control system, humanized Windows embedded system operating interface, so that the operation more simple, intelligent;
- ⚙ Adopt imported electropneumatic proportional valve plus linear position sensor and pressure sensor control mode, perfect coordination control system, so that feeding, heating, blowing, water cooling more accurate, stable, reliable and efficient;
- ⚙ The latest production molding technology, make it convenient, efficient control equipment, effectively improve production efficiency.

## Pipeline System

- ⚙ The inlet, outlet and diameter of the piping system are optimized to minimize the waste of energy consumption and improve the response speed. The design of cooling water pipe makes water cooling fast and efficient;
- ⚙ Mold cavity copper tube ring design, so that the product contact surface is more extensive, cooling more fully, the product surface is more smooth.

## Equipment parameters

| 型号 Model                     |                    |                | EPS-1200900STTH |     |  |
|------------------------------|--------------------|----------------|-----------------|-----|--|
| 参数 Parameter                 | 单位 Unit            |                |                 |     |  |
| 外形尺寸 Overall Dimensions      | mm                 | 5026×2540×3222 |                 |     |  |
| 模面尺寸 Die Surface Size        | mm                 | 1200×900       |                 |     |  |
| 制品高度 Height Of Product       | mm                 | 350            |                 |     |  |
| 开合模距离 Mould Opening Distance | mm                 | 1200           |                 |     |  |
| 导柱 Guide Post                | 直径 Diameter        | mm             | 80              |     |  |
|                              | 数量 Number          | 支              | 4               |     |  |
| 油缸 Oil Cylinder              | 内径 Inner Diameter  | φ              | 80              |     |  |
|                              | 行程 Stroke          | mm             | 1200            |     |  |
| 料桶 Charging Basket           | 容积 Volume          | L              | 50              |     |  |
|                              | 数量 Number          | 个              | 3               |     |  |
| 蒸汽 Steam                     | 进口 Import          | DN             | 80              |     |  |
|                              | 压力 Pressure        | bar            | 4~5             |     |  |
| 冷却 Cooling                   | 进口 Import          | DN             | 50              |     |  |
|                              | 压力 Pressure        | bar            | 4-4.5           |     |  |
| 真空 Vacuum                    | 接口 Interface       |                | 100             |     |  |
|                              | 排污口 Outfall        | L/h            | 100             |     |  |
| 空气 Air                       | 低压 Low Pressure    | 入口 Entrance    | DN              | 65  |  |
|                              |                    | 压力 Pressure    | bar             | 4~5 |  |
|                              | 高压 High Pressure   | 入口 Entrance    | DN              | 50  |  |
|                              |                    | 压力 Pressure    | bar             | 5~6 |  |
| 液压 Hydraulic                 | 电机 Motor           | Kw             | 5.5             |     |  |
|                              | 油箱容积 Tank Capacity | L              | 300             |     |  |



# Automatic Central Vacuum System

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## High Performance Vacuum Assisted Cooling Systems

- It is composed of cooling water supply, pipeline and large condenser. Based on the principle of water vapor exchange, a gas-liquid exchange mode is formed between hot steam vapor hydrate and liquid after it enters the central vacuum condenser through the main pipe. At the same time, through multiple partitions and layout optimization, the gas temperature can be reduced to below 40 degrees Celsius after exchange in accordance with the setting mode, so as to achieve efficient condensation.
- Its cooling water supply system has two groups of control, and the corresponding level switch controls its normal start and stop action. At the same time, the temperature detection device on the equipment can correctly determine the actual gas supply temperature, so as to adjust the water to achieve the goal of energy saving.

## Drainage Modules

- Collect the water vapor mixture from the vacuum pump through the large-diameter pipe to reduce the back pressure caused by poor drainage. At the same time, the water is discharged by a large diameter pump in a vacuum environment.

## Buffer Modules

- The over-capacity vacuum buffer tank can realize the stability and reliability of the vacuum system, avoid the phenomenon of high and low due to the sudden change in the number of equipment. At the same time, the large vacuum energy storage can make up for the pressure drop caused by the momentary supply shortage of the vacuum pump when the molding equipment is used.

## Control System

- It is composed of Siemens S7-40 programmable controller and Siemens Industrial touch screen. The system is controlled by PLC, programmable controller with modular structure, and multi-function control software of central vacuum process is built into the system. Can store the set program, automatic control. Operating panel adopts Siemens industrial high resolution variable rate LCD touch screen; The startup process and supply conditions can be adjusted according to the on-site startup situation. All the process parameters are set on the touch screen, which can be monitored in real time Equipment running state, with a variety of fault alarm and operation protection functions. And reserve computer centralized management interface.



## Equipment parameters

| 型号<br>Model                     |                                      | ST-ZYZK1200-150   | ST-ZYZK1600-200         | ST-ZYZK2000-250         |                         |
|---------------------------------|--------------------------------------|-------------------|-------------------------|-------------------------|-------------------------|
| 参数<br>Parameter                 | 单位<br>Unit                           |                   |                         |                         |                         |
| 基本参数<br>Basic Parameters        | 真空泵数量<br>Vacuum Pump Quantity        | 个                 | 3                       | 4                       | 5                       |
|                                 | 真空泵功率<br>Vacuum Pump Power           | kw                | 3×11KW                  | 4×11KW                  | 5×11KW                  |
|                                 | 真空抽气量<br>Vacuum Pumping Capacity     | m <sup>3</sup> /h | ≤1200                   | ≤1600                   | ≤2000                   |
| 缓冲罐<br>Buffer Tank              | 冷凝罐数量<br>Number Of Condensing Tanks  | 个                 | 2                       | 2                       | 2                       |
|                                 | 缓冲罐容积<br>Buffer Tank Volume          | m <sup>3</sup>    | 5                       | 5                       | 5                       |
|                                 | 缓冲罐接口<br>Buffer Tank Interface       | inch              | DN450                   | DN450                   | DN500                   |
| 工作液系统<br>Working Fluid System   | 管道接口<br>Interface Of Pipe            | inch              | DN25                    | DN25                    | DN25                    |
|                                 | 管道压力<br>Pressure Of Pipeline         | Mpa               | 0.2-0.3                 | 0.2-0.3                 | 0.2-0.3                 |
| 排水系统<br>Drainage System         | 排水泵<br>Drain Water Pump              | 个                 | 1                       | 1                       | 1                       |
|                                 | 排水泵功率<br>Discharge Pump Power        | kw                | 1×7.5                   | 1×7.5                   | 1×11                    |
|                                 | 排水口径<br>Diameter Of Drainage         | inch              | DN200                   | DN200                   | DN200                   |
| 空气系统<br>Air System              | 管道接口<br>Interface Of Pipe            | inch              | 1 (DN25)                | 1 (DN25)                | 1 (DN25)                |
|                                 | 管道压力<br>Pressure Of Pipeline         | MPa               | 0.5-0.7                 | 0.5-0.7                 | 0.5-0.7                 |
|                                 | 工作压力<br>Working Pressure             | MPa               | 0.4-0.6                 | 0.4-0.6                 | 0.4-0.6                 |
|                                 | 压缩空气消耗<br>Compressed Air Consumption | L/min             | 0.3                     | 0.3                     | 0.3                     |
| 电控系统<br>Electric Control System | 控制电压<br>Voltage Of Control           | V                 | DC24                    | DC24                    | DC24                    |
|                                 | 装机容量<br>Installed Capacity           | kw                | 45                      | 45                      | 56                      |
|                                 | 控制方式<br>Mode Of Control              |                   | PLC+工业<br>Industrial PC | PLC+工业<br>Industrial PC | PLC+工业<br>Industrial PC |
| 外形尺寸<br>Overall Dimensions      | 长<br>Long                            | mm                | 3500                    | 3500                    | 3500                    |
|                                 | 宽<br>Wide                            | mm                | 3200                    | 3200                    | 3200                    |

# Automatic Vertical Vacuum Block-Moulding Machine

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## Mechanical Structure

- The equipment adopts high strength rectangular square pipe and brand steel plate welded to form, the strength is greatly strengthened.
- All formwork has undergone standard heat treatment to reduce stress removal and prevent material deformation to a large extent.
- After heat treatment, all formwork is treated by sand blasting, rust proof primer and top coat, etc., which greatly improve the corrosion resistance and production life of the equipment.
- Using German electro connecting pressure gauge, safety valve and other equipment for multiple protection, the equipment can be tested by water pressure and steam test (a number of tests), to ensure the stable and reliable operation of the equipment before leaving the factory.

## Automatic Control

- Germany Siemens PLC and computer industrial touch screen control, easy to operate.
- The electric part adopts the French Schneider brand, the equipment is equipped with the material level sensor can automatically control the feeding, foam pressure sensor can automatically control the cooling degree, to achieve the equipment feeding, heating, cooling to the plate automatic operation.

## Equipment parameters

| 型号<br>Model                                  |                   | EPS-2000STBJL                                    | EPS-4000STBJL   | EPS-6000STBJL   |
|--|-------------------|--|-----------------|-----------------|
| 参数<br>Parameter                              | 单位<br>Unit        |  |                 |                 |
| 模腔内净尺寸<br>Mould Size                         | mm                | 2050×1240×1030                                   | 4080×1240×1030  | 6100×1240×1030  |
| 模腔体积<br>Mould Volume                         | m <sup>3</sup>    | 2.60   | 5.19            | 7.96            |
| 制品密度/比重<br>Products Density/Specific Gravity | kg/m <sup>3</sup> | 6-40   | 6-40            | 6-40            |
| 生产效率 (标准条件)<br>Production Capacity           | block/h           | 4-12   | 4-12            | 4-12            |
| 蒸汽压力<br>Steam Pressure                       | MPa               | 0.5~0.6  | 0.5~0.6         | 0.5~0.6         |
| 蒸汽进口口径<br>Steam Inlet DN                     | mm                | 150~40   | 150~50          | 200~65          |
| 压缩空气进口口径<br>Compressed-Air Inlet DN          | mm                | 50   | 80              | 80              |
| 功率 电源<br>Power Power Supply                  | kw                | 28.50  | 32.50           | 38.50           |
|  | V                 | 380  | 380             | 380             |
| 控制方式<br>Control Mode                         |                   | 自动<br>Automatic                                  |                 |                 |
| 结构特点<br>Structural Features                  |                   | 液压单门真空冷却<br>Hydraulic Single-door Vacuum Cooling |                 |                 |
| 控制系统<br>Control System                       |                   | PLC及人机界面<br>PLC with Touch Screen                |                 |                 |
| 最大外形尺寸<br>Max. Outer Dimension               | mm                | 9000×4000×3000                                   | 11000×4000×3000 | 14000×4000×3000 |
| 整机重量<br>Machine Net Weight                   | tons              | 8  | 12              | 16              |
| 自动输送装置<br>Automatic Conveyer                 |                   | 可选<br>Optional                                   | 可选<br>Optional  | 可选<br>Optional  |
| 电子称重<br>Electronic weighing Scale            |                   | 可选<br>Optional                                   | 可选<br>Optional  | 可选<br>Optional  |



# Automatic Vacuum Block Moulding Machine

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## Mechanical Structure

- The equipment adopts high strength rectangular square pipe and brand steel plate welded to form, the strength is greatly strengthened.
- All formwork has undergone standard heat treatment to reduce stress removal and prevent material deformation to a large extent.
- After heat treatment, all formwork is treated by sand blasting, rust proof primer and top coat, etc., which greatly improve the corrosion resistance and production life of the equipment.
- Using German electro connecting pressure gauge, safety valve and other equipment for multiple protection, the equipment can be tested by water pressure and steam test (a number of tests), to ensure the stable and reliable operation of the equipment before leaving the factory.

## Automatic Control

- Germany Siemens PLC and computer industrial touch screen control, easy to operate.
- The electric part adopts the French Schneider brand, the equipment is equipped with the material level sensor can automatically control the feeding, foam pressure sensor can automatically control the cooling degree, to achieve the equipment feeding, heating, cooling to the plate automatic operation.

## Equipment parameters

| 型号<br>Model                                  |                   | EPS-2000STBJW                                    | EPS-4000STBJW   | EPS-6000STBJW   |
|--|-------------------|--|-----------------|-----------------|
| 参数<br>Parameter                              | 单位<br>Unit        |  |                 |                 |
| 模腔内净尺寸<br>Mould Size                         | mm                | 2050×1240×1030                                   | 4080×1240×1030  | 6100×1240×1030  |
| 模腔体积<br>Mould Volume                         | m <sup>3</sup>    | 2.60   | 5.19            | 7.96            |
| 制品密度/比重<br>Products Density/Specific Gravity | kg/m <sup>3</sup> | 6-40   | 6-40            | 6-40            |
| 生产效率 (标准条件)<br>Production Capacity           | block/h           | 4-12   | 4-12            | 4-12            |
| 蒸汽压力<br>Steam Pressure                       | bar               | 0.5-0.6  | 0.5-0.6         | 0.5-0.6         |
| 蒸汽进口口径<br>Steam Inlet DN                     | mm                | 150-40   | 150-50          | 200-65          |
| 压缩空气进口口径<br>Compressed-Air Inlet DN          | mm                | 50   | 80              | 80              |
| 功率 电源<br>Power Power Supply                  | kw                | 28.50  | 32.50           | 38.50           |
| 控制方式<br>Control Mode                         |                   | 自动<br>Automatic                                  |                 |                 |
| 结构特点<br>Structural Features                  |                   | 液压单门真空冷却<br>Hydraulic Single-door Vacuum Cooling |                 |                 |
| 控制系统<br>Control System                       |                   | PLC及人机界面<br>PLC with Touch Screen                |                 |                 |
| 最大外形尺寸<br>Max. Outer Dimension               | mm                | 9000×4000×3000                                   | 11000×4000×3000 | 14000×4000×3000 |
| 整机重量<br>Machine Net Weight                   | tons              | 8  | 12              | 16              |
| 自动输送装置<br>Automatic Conveyor                 |                   | 可选<br>Optional                                   | 可选<br>Optional  | 可选<br>Optional  |
| 电子称重<br>Electronic weighing Scale            |                   | 可选<br>Optional                                   | 可选<br>Optional  | 可选<br>Optional  |

## Model Project



## Logistics & Packaging





▶ EPP/EPS Energy-saving Sample Factory





## From steelplate to assembly machine professional line work

From the Steel - Cutting stock - Welding - Tempering - NC Machining - Shot Blasting - Spray Painting - Hardware Processing - Machine Assembling - Testing Inspection, the whole manufacturing line is controlled and completed by ourselves.

