Aseptic Cartridge Filling Line

Shanghai Pharmaceutical Machinery Co., Ltd. (SPM)

Office: 4F, Building A, No. 668 Xinzhuan Road, Songjiang District, Shanghai, China. PC:201612

Factory Add: No. 169, Fengzhan Road, Fengjing Town, Jinshan District, Shanghai, China. PC:201501

Tel: 0086 21 33522115, 33522116

Fax: 0086 21 33522135

Web: www.spm.so

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Compiled by: Mr. Ted

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Photos of Cartridge:

by T/T before delivery date.
Packing: By export wooden cases.
Delivery Date: Within 90 days after receipt of down payment.
Terms of Validity: 60 days after the quotation issuing.

1. ZX100 Automatic Ultrasonic Washing Machine

The machine is mainly used for cleaning and blowing dry of water or gas in many kinds of bottles in biology, medicine, cosmeceuticals and other industries. The bottle is manually or automatically and orderly sent to the continuous movement of the rotary table, and then the rotary table will automatically send the bottle to the ultrasonic water bath area of the bottle washing machine for pretreatment, 2-step water cleaning + 2-step compressed air blowing, automatic bottle to bottle collection plate or to the downstream machine process. The machine overall structure design is compact, stable performance, the main transmission structure without maintenance; The control part adopts PLC program and operates on the interface of human machine. And a host frequency conversion speed regulation to meet the requirements of various specifications of production capacity.

Working principle:
The bottle is manually sent to the top bottle table and then sent to two bottle feeding channels, and then pushed into the bottle washing station basket stand by two bottle feeding star wheels. After collecting the bottles, the bottle basket rack rotates into the ultrasonic water bath for pretreatment (option), and then enters the cleaning station of clean water and clean compressed air for pre-washing and flushing. At the cleaning station, the water washing nozzle and air washing nozzle enter the bottle to spray washing, while the outer nozzle cleans the bottle outside. The last step of water cleaning uses fresh deionized water cleaning, the machine has no bottle stop, no bottle do not

clean the function.

PLC control system:
The work of the bottle washing machine is controlled by PLC, and the process parameters are set by the touch screen and operated by three-level password, in accordance with 21CRF part11 guidelines. Information is displayed on the touch screen when an error occurs.

Technical parameters:
- power supply: 380 v / 50 hz
- electric power: 1.8 kw
- Compressed air pressure: 0.4-0.6mpa
- Compressed air consumption: about 15m3/hr
- pure water consumption: 0.6-1 m3 / hr

- Water contact material: SS316 stainless steel
- Pipes and ports: SS316 stainless steel
- machine frame housing: SS304 stainless steel
- Cover: polyethylene transparent sheet with handle
- Machine weight: 600kg excluding circulating water tank
- Machine size (LxWxH): 2530x1310x1300mm

2. MSH360 Tunnel type sterilization oven

Working Principle

This oven is specially designed for batch drying and sterilization of all kinds of glass bottles. The bottles are carried on the conveyor belt and transmitted continuously through three areas respectively to heat, sterilize, cool and bottle out to the filling machine. Conveyor belt speed stepless adjustable; Stainless steel heating pipe is used for circulating air heating, which is fast, high efficiency and uniform temperature. The temperature is displayed and controlled by the temperature controller and automatically recorded for future reference. The pre-heating and cooling area is equipped with steam exhaust device, which can discharge the volatile steam from the bottle out of the box in time; The three zones are designed in a high efficiency filter class 100 clean circulating air mode to protect the aseptic state of the bottles. The cooling zone maintains a negative pressure of at least 25Pa over the filling area to meet GMP specifications. Adopting sterilization temperature of 180-250 ℃, sterilization effect reaches at least the standard of bacteria drop 3-d (escherichia coli not tested standard), the process is all controlled by PLC program and the operation mode of grade 3 password is in line with 21CRF Part 11 regulations. All production and fault alarm information is displayed in the touch screen, the data cannot be changed.

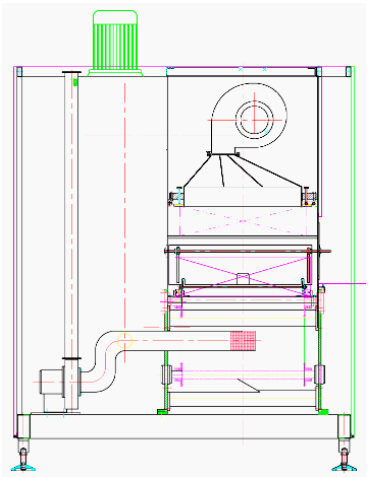
The oven adopts carbon steel as the base frame and is wrapped with 304 stainless steel, and the inner surface is made of stainless steel 316 plate. Adopt stainless steel wire mesh as conveyor belt, both sides are equipped with vertical belt. The oven is equipped with temperature detection sensor for controlling and detecting the temperature in the oven. The hePA filter is installed on the upper part of each area and blows laminar air down the bottle to heat or cool the bottle, and then returns the air to the heated area to heat or cool the bottle.

H13 class HEPA filters manufactured by Cornfield or Cambridge are configured in the preheating, heating and cooling zones as follows:
- High efficiency in preheating zone: H13, can withstand high temperature below 180℃.
- High efficiency of heating zone: H13, can withstand high temperature below 250℃.
- High efficiency of cooling zone: H13, can withstand normal temperature below 70℃

Maximum average efficiency > 99.97% (= H13). All hePA filters are provided with a stainless steel SS316 frame. Each area of the oven is equipped with PAO holes for filter integrity testing.

All the sterilization process and the operation of the oven by prefabricated program by PLC to control, all operations through the level 3 password authorization into the interface into the system All the production process of

temperature data recorder to record the curve through configuration of 6, production data and alarm history can be displayed in the screen and view and print all the data do not regard the change All alarm faults are as follows: - Fan frequency converter failure - fan motor failure - mesh belt motor failure - heating tube failure - heating zone overheating fault - bottle outlet overheating fault - preheating zone The preheating zone serves as a transition zone between the bottle washing zone and the heating zone. The glass bottle is preheated to 70 by preheating laminar flow wind in the preheating zone before entering the heating zone Pre-drying at the same time, one preheated high efficiency filter size :457mm x 610mm x 150mm, Laminar air velocity :0.45-0.65m/s Controlled by the differential pressure sensor Magnehelic 2000 to show the fan collecting air from the bottle washing room and removing moisture through the exhaust duct how much pressure is maintained in this area relative to the bottle washing room requires the user's workshop purification air inlet data to match the setting There are two Pt100 sensors in this area to detect and control the temperature to keep the oven safe



At the same time, the water in the bottle is evaporated and removed from the oven through the dehumidification channel. The sterilization efficiency of the bottle can reach 3D grade (according to the standard of E. coli detection). The size of the two heating high efficiency filters :762mm x 610mm x 150mm, Laminar air velocity :0.65-0.85m/s Controlled by the differential pressure sensor Magnehelic 2000 and showing how much pressure is maintained in this area relative to the preheating area through the exhaust pipe requires user shop purification air inlet data to be set The heating area cavity insulation layer is made of ceramic cotton insulation, asbestos free. The external wall surface temperature is less than 45. This area is equipped with 2 Pt100 sensors to detect and control the temperature to maintain oven safety

After the bottle enters the cooling area, the cooling laminar flow wind of 6-9 starts to cool it until the bottle outlet temperature is 15 higher than the room temperature of the filling machine, and the cooling return water temperature is 12-15. Laminar air velocity :0.55-0.65m/s Controlled by the differential pressure sensor Magnehelic 2000 and showing how much pressure is maintained in this area relative to the preheating area through the exhaust pipe requires user shop purification air inlet data to match the setting The heating area cavity insulation layer is made of ceramic cotton insulation, no asbestos composition, and the surface temperature of the outer wall is less than 45. 2 sensors are configured in this area to detect and control the temperature to maintain the safety of the oven

Technical parameters:
- Power supply: 380V/50Hz
- Electric power: about 45KW
- Total exhaust air volume: 3700 m3/hr
- Area temperature error: ≤±8° C no load
- Machine weight: 3500kg
- Machine size (LxWxH): 3600 x 1800 x 2400mm

3. YGX filling and capping machine

The machine is mainly used for filling and capping in biology, medicine and other industries. The bottles sent from the upstream will enter the filling station for filling, and then enter the intermittent movement of the rotary plate for the

corresponding capping capping capping sealing. The machine design compact structure, stable performance, the main transmission structure without maintenance, is the ideal filling and capping equipment; The control part adopts PLC program and operates on the interface of human machine. It is equipped with frequency control of main engine, stepless speed control of conveyor belt, frequency control of screw cap and torque control to meet the requirements of production capacity of various specifications.

Technical features:
The operation interface is touch screen, PLC control, simple and reliable operation.
The linear bearing used on the surface of the filling machine is egus oil-free bearing from Germany to avoid pollution to the product.
Filling machine is equipped with metering pump fine-tuning device, high metering precision, easy to adjust; No dripping, no bubbling, no splashing.
The liquid output from the (10 l) buffer tank is connected to the filling pump through a special patented dispenser to achieve non-damaging suspension particles, ensuring the integrity of the solution.
With no bottle no filling, lack of bottle, plug and cover alarm, stop the function.
Photoelectric detection function: the oscillator is delayed to stop when there is a plug, and starts to run when there is no plug.
The signals of cylinder operation are detected by their respective photoelectric signals and controlled by PLC output.
With no bottle no plug, no pressure plug function.
The machine is equipped with safety transparent protective cover structure material can withstand 75% alcohol, the thickness is not less than 3mm transparent resin
All contact parts with bottles and liquids are made of high quality SUS304 or SUS316 stainless steel and other FDA-approved materials in accordance with GMP requirements.
All parts in contact with the product are resistant to corrosion at a concentration of 1.734 mol/l chloride ion

Technical parameters:
Suitable bottle: round glass bottle
Production capacity: 80-100 bottles/min
Suitable specification: 3ml
Molded air: 0.4-0.6mpa
Power supply: 380V, 50Hz
Total power rate: 3.0kW
Dimensions: 2440×1500×1800mm
Machine weight: 1000KG

4. WTB-C Automatic Labeling Machine




Brief Introduction:

The sticky labeler applies sticky roller to label on small round bottles. In the process of vertical bottle feeding, label is torn off consecutively from the labeling roll and stuck on the fixed position of the bottle body. It is a modern machine integrating mechanism and electricity with good and reliable working property.

The sticky label has the advantages of cleaning, non-mouldness, elegance, durableness, and high efficiency. It's widely used in the fields of medicine, food stuff, stationery, cosmetics, light industry, chemical industry, etc. The machine

can stick label on all types of circular stuff with great adaptability.

Main Characteristics:
PLC Control System which is easy to control
Simple Straight Forward Operator Controls
On-Screen trouble description which is easy to solve
Stainless Frame
Open Frame design, easy to adjust and change the label
Variable Speed with stepless motor
Label Count Down (for precise run of set number of labels) to Auto Shut Off
Stamping Coding Device attached

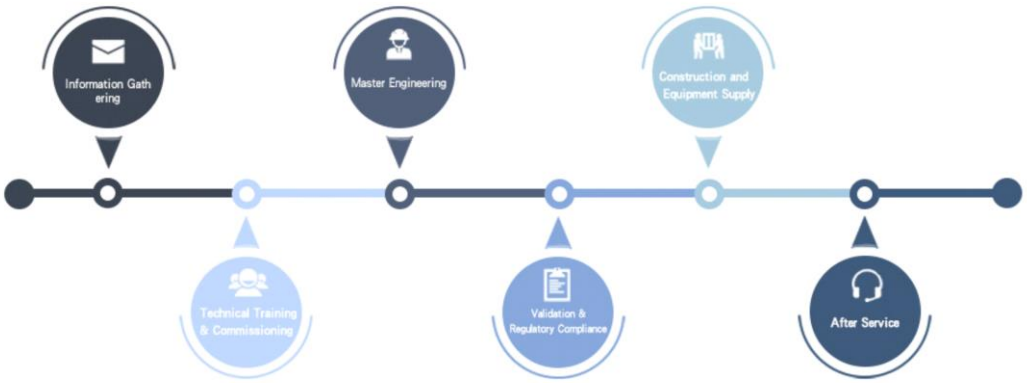
Major Technical Data:
Labeling and printing speed: 80-100 bottles/min (depending on product diameter and label length)
Labeling accuracy: <±1.0mm (depending on the product characteristics and material, hardness and round truth)
Power source: 220V/50Hz
Total power rate: ≈ 1.0kW
Compressed air: 0.3mpa ~ 0.5mpa
Total weight of labeling machine: about 400 kg
Overall size: 2000×900×1700mm
Applicable specifications: multi-specification round bottle
Material quality: all the institutions including the frame, the box are made of high quality stainless steel and aluminum profiles, the material is environmentally friendly and pollution-free, in line with GMP standards.

About SPM:

SPM is the high-tech Enterprise company specialized in designing and manufacturing pharmaceutical machinery. We believe quality is the foundation success. With our trustful and reliable service, our products sold well in China and also export all around the world

Turnkey Projects:

With more than 20 years of industry-wise experience and service, Shanghai Pharmaceutical Machinery is the professional pharmaceutical turnkey project provider in the domestic and foreign market. SPM helps our customer to find a cost efficient and competitive solution to face the current dynamic economy. We provide full set of services starting from project planning stage to the start of production.



Showcase: