SHINVA 新华医疗

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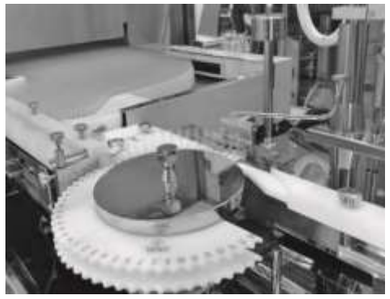
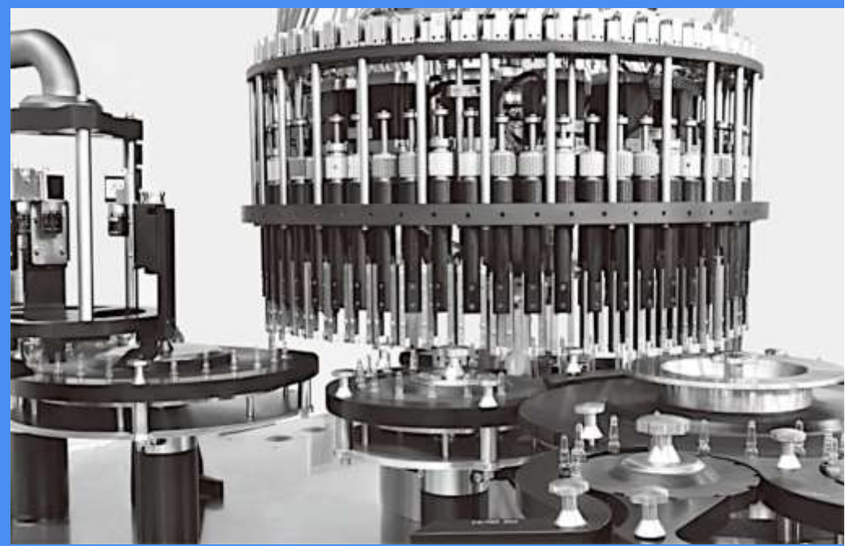


STERILE
PRODUCTION LINES

Quality equipment for Sterile Production



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Assembly Plant

Our team and company culture includes looking all time to deliver high quality equipment that can help our customers produce the best products for the end user.

We believe that the sustainable development lies on the endless pursuit of perfect quality.

SHINVA 新华医疗

Sterile Production Lines

We have modern production facilities and a team working under strict production procedures to assure customers receive quality products.

We invite you to visit us and be able to experience our company production processes.

Production Equipment

SHINVA 新华医疗

Sterile Production Lines

For quality manufacturing it is necessary to count with the best equipment with the highest accuracy.

We count with high tech equipment to assure that all the parts made in for our machines are able to repeatable, this becomes a key issue especially when spare parts are required.

protech® Solutions Authorized Representative

Quality Management And Control

For quality manufacturing it is necessary to count with the best equipment with the highest accuracy.

We count with high tech equipment to assure that all the parts made in for our machines are able to repeatable, this becomes a key issue especially when spare parts are required.

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Professional Solutions for Pharmaceutical Industry

PRODUCTION LINES

SINGLE MACHINES

STERILE SOLUTIONS

AMPOULE FILLING LINE

PRO-RAW, PRO-DAT, PRO-AFS

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Summary

The Ampoule Washing-Drying-Filling-Sealing production line is composed of the PRO-RAW washing machine, PRO-DAT hot air tunnel circulation sterilizing oven and the PRO-AFS series vertical filling-sealing machine, which can be also used independently. Suitable for production of ampoule injection of 1-20ml, it can complete more than 20 procedures such as spray and water filling, ultrasonic rough washing, bottle exterior wall washing, bottle interior wall continuous secondary circulation water washing, primary blowing, primary fresh water washing, continuous secondary blowing, bottle exterior wall blowing, preheating, drying, sterilizing, pyrogen removing, cooling, front gas charging, filling, rear gas charging, preheating, sealing, etc.

AMPOULE FILLING LINE

PRO-RAW, PRO-DAT, PRO-AFS

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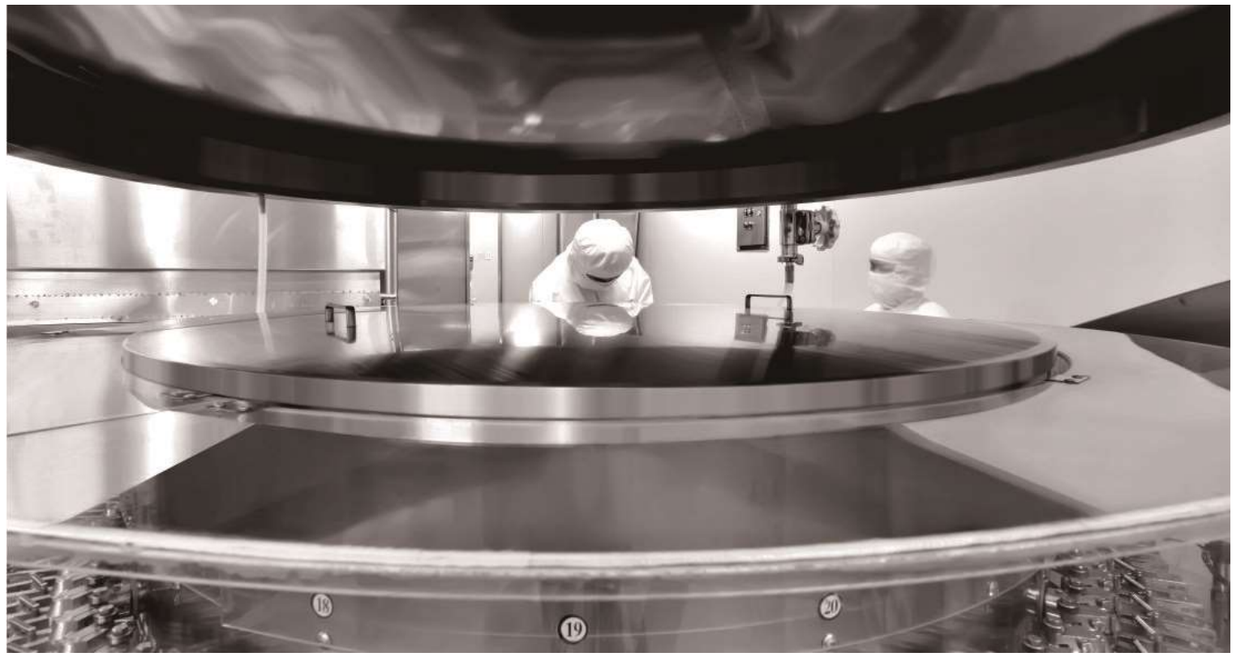
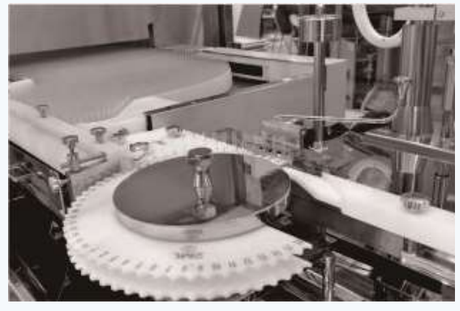


The product line is a new line researched and developed by our company after years of efforts through integrating proprietary patented technologies on the basis of digesting and absorbing domestic and overseas technologies.

Performances features

- The bottle washing machine adopts mechanical hands to clamp the bottles, suitable for ampoules of 1-20ml;
- The water-gas spray needles adopt the reciprocating tracking insertion mode for bottle washing featured by good washing effect and energy saving. It is also provided with a device that prevents the needle holder from shaking to enhance the accuracy of the spray needle's insertion into the bottle and reduce the occurrence of needle breakage;
- The water and gas pipes are totally separable from the spray needles, so that cross contamination is avoided and GMP requirements are met;
- The buffer block is installed before the bottle feeding screw of the bottle washing machine to protect the screw and reduce bottle breakage;
- Bottle discharging is realized by the integral imported synchronous belt that is connected to the bottle pushing block and conveys ampoules with stable and reliable running;
- The oven adopts hot air circulation heating with even temperature and energy saving;
- The oven is provided with the function of protecting against sudden power-off to ensure safe running;
- The oven can be equipped with the differential pressure automatic balancing and regulating system to reduce the problems of deviation at the high temperature section caused unbalanced differential pressure;
- The oven is provided with DOP inspection ports (including inspection ports for wind pressure, wind speed and dust particles);
- The cooling section in the oven is provided with the sterilization function (complying FDA);
- The oven mesh belt can be equipped with the ultrasonic and CIP cleaning systems;
- The oven cavity can be subject to all-round, multi-angle high pressure water washing;
- In the vertical filling-sealing machine, bottle feeding is carried out by using the constant speed pushing wheel instead of sector pushing block to reduce the bottle breakage rate;
- The filling-sealing machine adopts the imported synchronous belt and bottle turning gearbox instead of the old-fashioned bottle turning box, featured by low wear and reliable running;
- The filling-sealing machine is equipped with the needle holder and clamping stand automatic locking device;
- The filling-sealing machine can be equipped with the ceramic pump, stainless steel pump and peristaltic pump;
- The filling-sealing machine can be equipped with the servo filling system.

The whole line adopts PLC main control, frequency converter and touch screen control technology with stable and reliable running. The touch screen can display running dynamics of each single machine, water, air and wind pressures and temperature at each control point. The display of each on-off status and faults, fault self-diagnosis, fault analysis and eliminating ways realizes automatic control during the whole production process. The production line is provided with the three-machine automatic control and balancing device to ensure balanced and reliable production.



AMPOULE FILLING LINE

PRO-RAW, PRO-DAT, PRO-AFS

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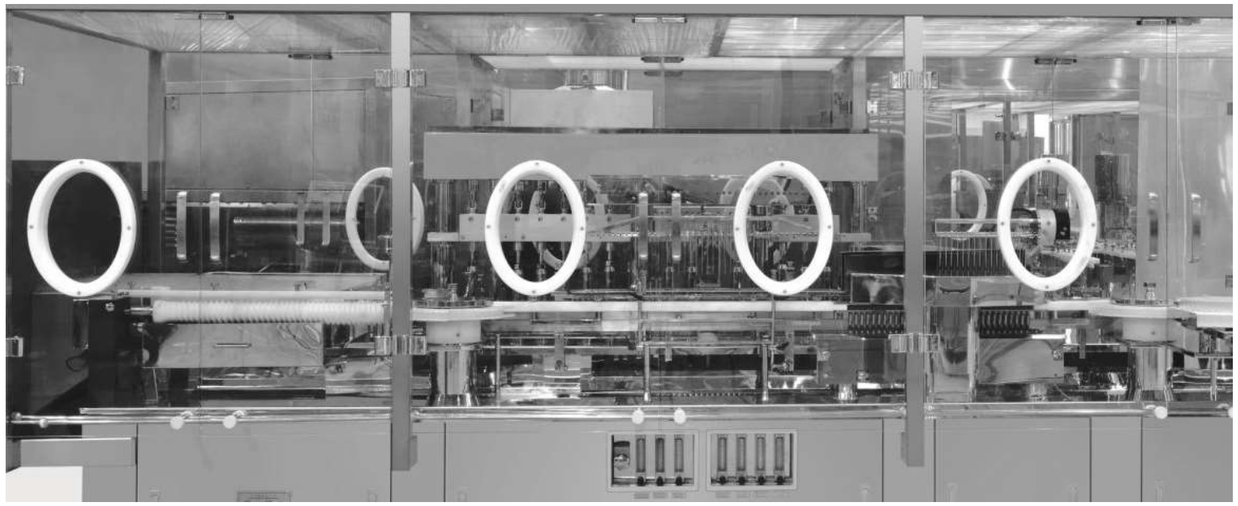
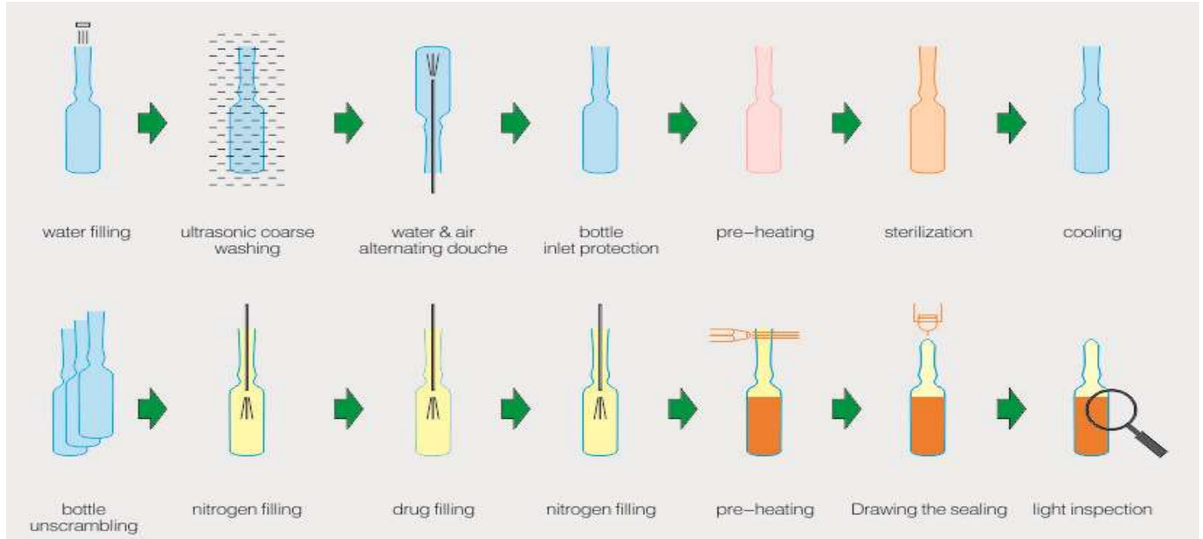


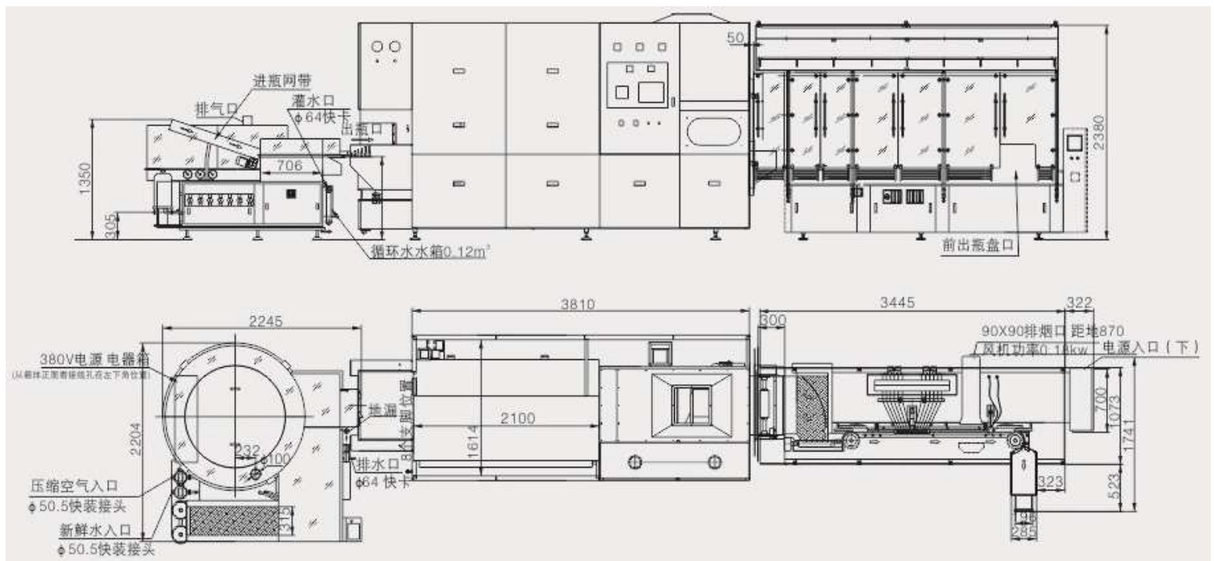
According to consumer requirements, it can also be equipped with the following features:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc.
- Water pressure, air pressure, water temperature, ultrasonic strength, dust particles and wind speed online inspection, alarming, recording and printing systems;
- ORABS, CRABS, aseptic isolator system.

Process flow



Plane installation diagram



Main technical parameters

Product model	RAW100+DAT620 +AFS8/1-20	RAW120+DAT620 +AFS10/1-20	RAW120+DAT620 +AFS12/1-20	RAW120+DAT620 +AFS16/1-20
Applications	1-20ml (standard ampoule)	1-20ml (standard ampoule)	1-10ml (standard ampoule)	1-2ml (standard ampoule)
Capacity (pcs/hr)	1-2ml 22000	1-2ml 24000	1-2ml 28000-30000	1-2ml 38000-40000
	5ml 6000	5ml 18000	5ml 20000	
	10ml 11000	10ml 15000	10ml 18000	
	20ml 6000	20ml 8000	20ml 2000	
Cleanness	>99%			
Qualified rate	More than 99% (standard solution)			
Quantity error	According to National State Pharmacopoeias standards of China			
Fresh water Consumption and Pressure	Consumption: 0.4-1.0cbm/h Pressure: 0.2Mpa			
Purified Compressed Air Consumption and Pressure	Consumption: 30-75cbm/h Pressure: 0.15Mpa			
Sterilizing Temperature	300°C-350°C			
Air Cleanness	100 class			
Exhaust Volume	4100m³/h			
Gas Fuel Consumption And Pressure	Consumption:1.5-2.5cbm/h Pressure: 0.2-0.3Mpa			
Oxygen Consumption And Pressure	Consumption: 1.2-1.5cbm/h Pressure: 0.2-0.3Mpa			
Overall Dimensions (L x W x H)	9940x2003x2445mm	10100x2260x2455mm		10600x2260x2455mm
Wight	7500kg			
Power Capacity	380v50hz,71kw			

VIAL FILLING LINE

PRO-RVW, PRO-DVT, PRO-VFM, PRO-VCM

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Summary

The vial liquid washing- drying-filling-stoppering production line is composed of the PRO-RVW series vertical ultrasonic bottle washing machine, PRO-DVT tunnel got air circulation oven and PRO-VFM series vial liquid filling-stoppering machine, which can also be used independently. Suitable for production of vial injection of 2-25ml, it can complete more than 20 procedures such as spray, and water filling, ultrasonic tough washing, bottle exterior washing, bottle interior wall continuous secondary circulation water washing, primary blowing, primary fresh water washing, continuous secondary blowing, bottle exterior wall blowing, preheating, drying, sterilizing, pyrogen removing, cooling, front gas charging, filling, rear gas charging, stoppering, etc.

VIAL FILLING LINE

PRO-RVW, PRO-DVT, PRO-VFM, PRO-VCM

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Performance features

- The bottle washing machine adopts mechanical hands to clamp the bottles, suitable for vials of various specifications.
- The water-gas spray needles adopt the reciprocating tracking insertion mode for bottle washing, featured by good washing effect and energy saving. It is also provided with a device that prevents the needle holder from shaking to enhance the accuracy of the spray needle's insertion into the bottle and reduce the occurrence of needle breakage.
- The water and gas pipes are totally separable from the spray needles, so that cross contamination is avoided and GMP requirements are met.
- The buffer block is installed before the bottle feeding screw of the bottle washing machine to protect the screw and reduce bottle breakage.
- Bottle discharging is realized by the integral imported synchronous belt that is connected to the bottle pushing block and conveys ampoules with stable and reliable running.
- The oven adopts hot air circulation heating with even temperature and energy saving.
- The oven is provided with the function of protecting against sudden power-off to ensure safe running.
- The oven can be equipped with the circulation water cooling device that does not consume wind volume in the room, reduces the risk of unbalanced differential pressure in the room and achieves good cooling effect.
- The oven can be equipped with the differential pressure automatic balancing and regulating system to reduce the problems of deviation at the high temperature section caused by unbalanced differential pressure in the room and oven, temperature rise in the filling room, washing and drying room, etc.
- The oven is provided with DOP inspection ports (including inspection ports for wind pressure, wind speed and dust particles).
- The cooling section in the oven is provided with the sterilization function (complying FDA).
- The oven mesh bell can be equipped with the ultrasonic and cleaning systems.
- The oven cavity can be subject to all-round, multi-angle high pressure water washing.
- The filling machine adopts the horizontal synchronous belt bottle conveying mode, featured by high speed, accurate bottle distribution and convenient replacement of parts.
- The conveying plane where the bottle bottom is located has a certain distance to the work table, so as to benefit the passing of the 100-grade laminar flow and avoid turbulent flow of polluted liquid medicines.
- The stoppering part of the filling machine adopts horizontal stoppers conveying and horizontal round disc stopper suction, featured by convenient observation, easy feeding and high-speed stopper conveying.
- The filling machine can be equipped with the ceramic pump, stainless steel pump and peristaltic pump.
- The filling machine is provided with the functions of no filling in case of no bottle and no stoppering in case of no bottle.
- The filling machine can be equipped with the servo filling system (Delta, Mitsubishi, Schneider).

The whole line adopts PLC main control, frequency converter and touch screen control technology with stable and reliable running. The touch screen can display running dynamics of each single machine, water pressure, air pressure, wind pressure and temperature at each control point. The display of each on-off status and faults, fault self-diagnosis, fault analysis and eliminating ways realizes automatic control during the whole production process.

VIAL FILLING LINE

PRO-RVW, PRO-DVT, PRO-VFM, PRO-VCM

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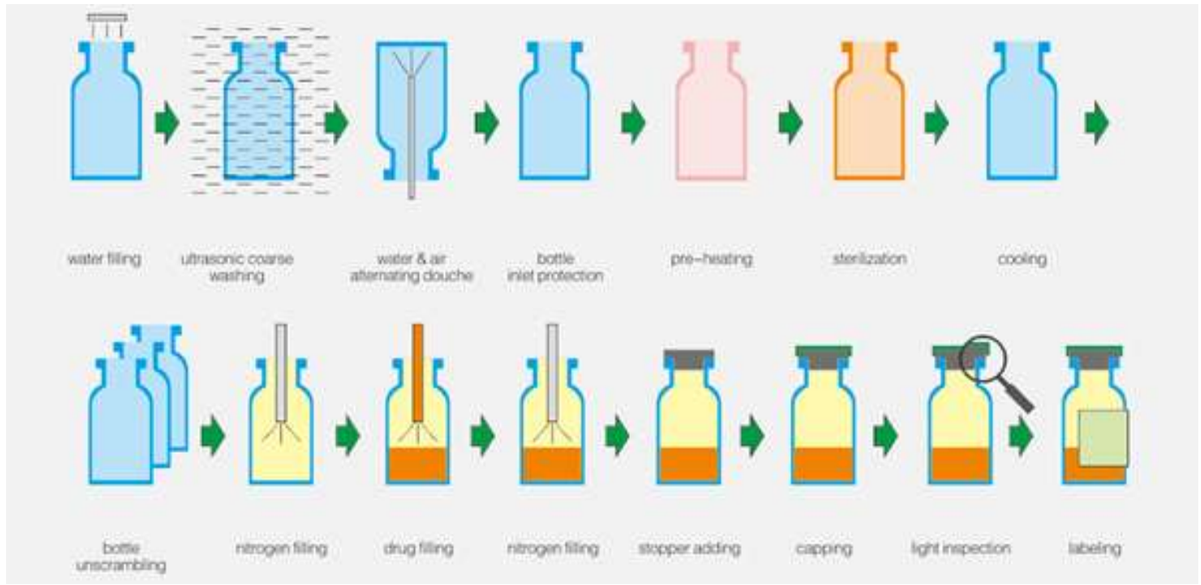
The production line is provided with the three-machine automatic control and balancing device to ensure balanced and reliable production.

According to customer requirements, it can also be equipped with the following:

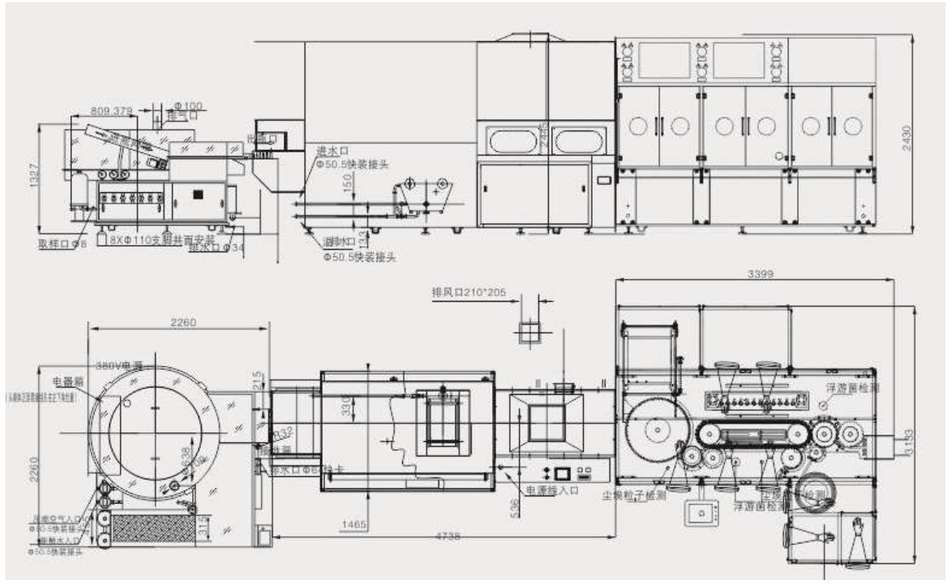
- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc;
- Water pressure, air pressure, water temperature, ultrasonic strength‘ dust particles and wind speed online inspection, alarming, recording and printing systems;

ORABS, CRABS, aseptic isolator system.

Process flow



Plane installation diagram



Main technical parameters

Product model	RVM60+ DVT620/35 +VFM4	RVM60+ DVT620/43 +VFM6	RVM60+ DVT620/35 +VFM8	RVM80+ DVT620/48 +VFM10	RVM120+ DV800/55 +VFM12	RVM120+ DVT1250/60 +VFM20	RVM80*2+ DVT1250/60 +VFM412*2
Applicable specifications	2-25ml						
Filling quotas	4	6	8	10	12	20	24
Production capacity (2ml)	120 p/min	180p/min	200p/min	300p/min	400p/min	500p/min	650p/min
Washing bottle percent of pass	≥99%						
Washing bottle breakage	≤0.1%						
Sterilizing temperature	300-350°C						
Exhaust air	3000m²/h		4100 m²/h		7500 m²/h	8000-10000 m²/h	
Load error	≤±2% ≤±0.5-1%						
Gasser percent of pass	99%						
Laminar air cleanness	100						
Vacuum pumping speed	10m³/H	30m³/H	50m³/H	60m³/H	60m³/H	100m³/H	120mm³/H
Capacitance	66.6KW	75.6KW		106.6KW		212.6KW	232.6KW
Power supply	385V 50Hz						
Total weight	6300kg		7900kg		9400kg	10900kg	14600kg
Overall dimensions	8550x2540x2330		9620x2540x2330		10280x3230x2360	12730x2600x2620	11790x5700x2620

DUAL FILLING LINE

PRO-RDW, PRO-DDT, PRO-DFS, PRO-VCM

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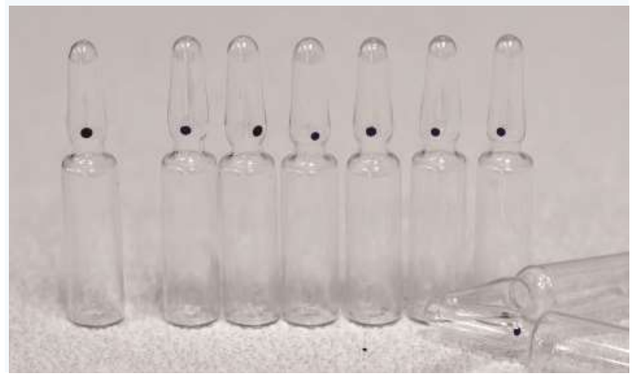
Summary

The Dual Filling Line ampoule and vial washing-drying-filling production line is composed of the PRO-RDW series vertical ultrasonic bottle washing machine, PRO-DDT tunnel hot air circulation sterilizing oven and PRO-DFS series ampoule and vial filling machine, which can also be used independently. Suitable for production of ampoule injection of 1-20ml and vial injection of 2-25ml, it can complete more than 20 procedures such as spray and water filling, ultrasonic rough washing, bottle exterior wall washing, bottle interior wall continuous secondary circulation water washing, primary blowing, primary fresh water washing, continuous secondary blowing, bottle exterior wall blowing, preheating, drying, sterilizing, pyrogen removing, cooling, front gas charging, sealing, stoppering, etc. The production line is a high speed injection production line meeting GMP requirements successfully developed by our company after years of research according to conditions of injection industry. It has such advantages as high production speed, high rate of finished products, convenient operation and maintenance, low running costs, etc. The machine uses the PLC system to realize automatic control of the whole production process.



DUAL FILLING LINE

PRO-RDW, PRO-DDT, PRO-DFS, PRO-VCM

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Performance features

- The bottle washing machine adopts mechanical hands to clamp the bottles, suitable for ampoules of 1-20ml and vials of 2-25ml.
- The water-gas spray needles adopt the reciprocating tracking insertion mode for bottle washing, featured by good washing effect and energy saving. It is also provided with a device that prevents the needle holder from shaking to enhance the accuracy of the spray needle's insertion into the bottle and reduce the occurrence of needle breakage.
- The water and gas pipes are totally separable from the spray needles, so that cross contamination is avoided and GMP requirements are met
- The spray needle guide mouth of the bottle washing machine adopts imported ceramic bushing without wear.
- Bottle discharging is realized by the integral imported synchronous belt that is connected to the bottle pushing block and conveys ampoules with stable and reliable running.
- The oven adopts hot air circulation heating with even temperature and energy saving.
- The oven is provided with the function of power-off prevention high-efficiency self-heating at the high temperature section to ensure safe running.
- The oven can be equipped with the circulation water cooling device to reduce the instability of wind pressure in the clean workshop and control air quantity.
- The oven is provided with the imported differential pressure gauge, frequency converter, etc., featured by sensitive system and stable performance.
- The oven is provided with the wind pressure automatic balancing system to avoid the drifting of airflow at the high temperature section.
- The production line is provided with the three-machine automatic control device to ensure balanced and reliable production.
- The filling-sealing machine can be used for filling of ampoules and can also be used for filling, stoppering and semi-stoppering of vials.
- The filling machine is provided with sufficient gas charging work stations to ensure one-off charging, front and rear nitrogen charging, medicine filling, stoppering and semi-stoppering.
- The filling machine is provided with the functions of no filling in case of no bottle and no stoppering in case of no bottle.
- The filling-sealing machine can be equipped with the 100-grade laminar flow hood, which can also be provided by users.

According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc;
- Water pressure, air pressure, water temperature, ultrasonic strength, dust particles and wind speed online inspection, alarming, recording and printing systems;
- ORABS, CRABS, aseptic isolator system.

DUAL FILLING LINE

PRO-RDN, PRO-DDT, PRO-DFS, PRO-VCM

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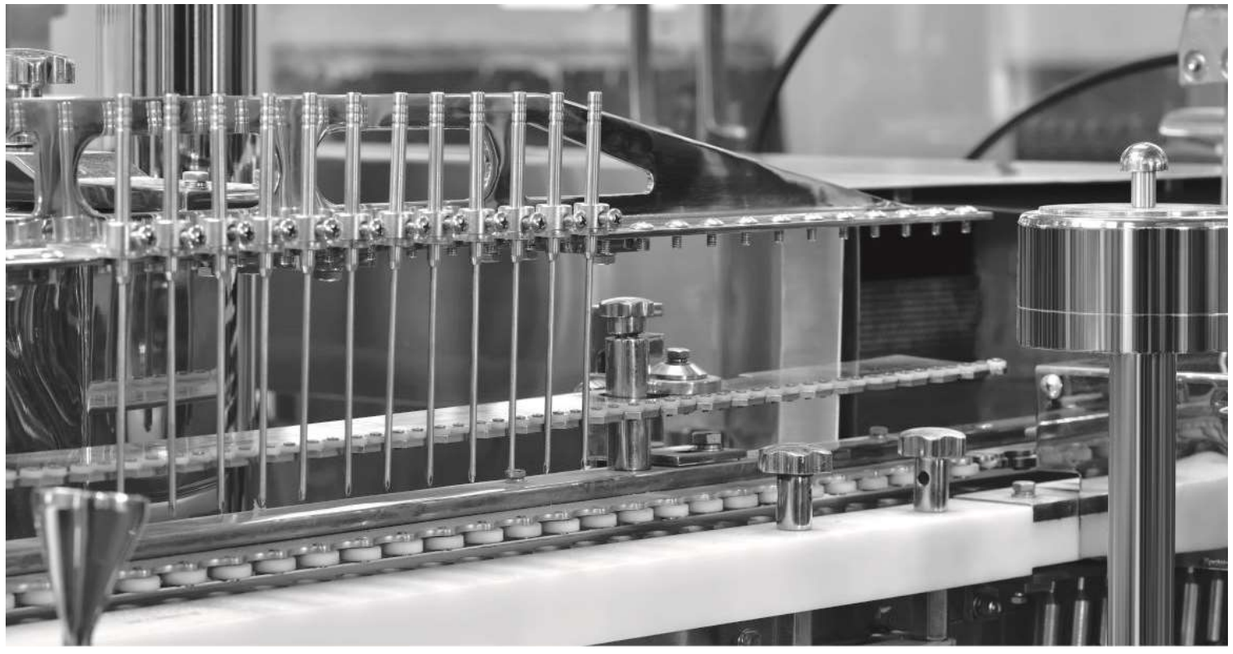
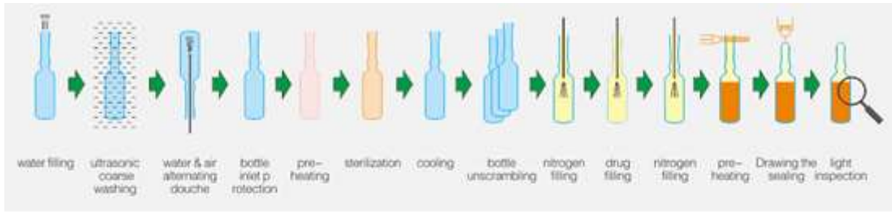
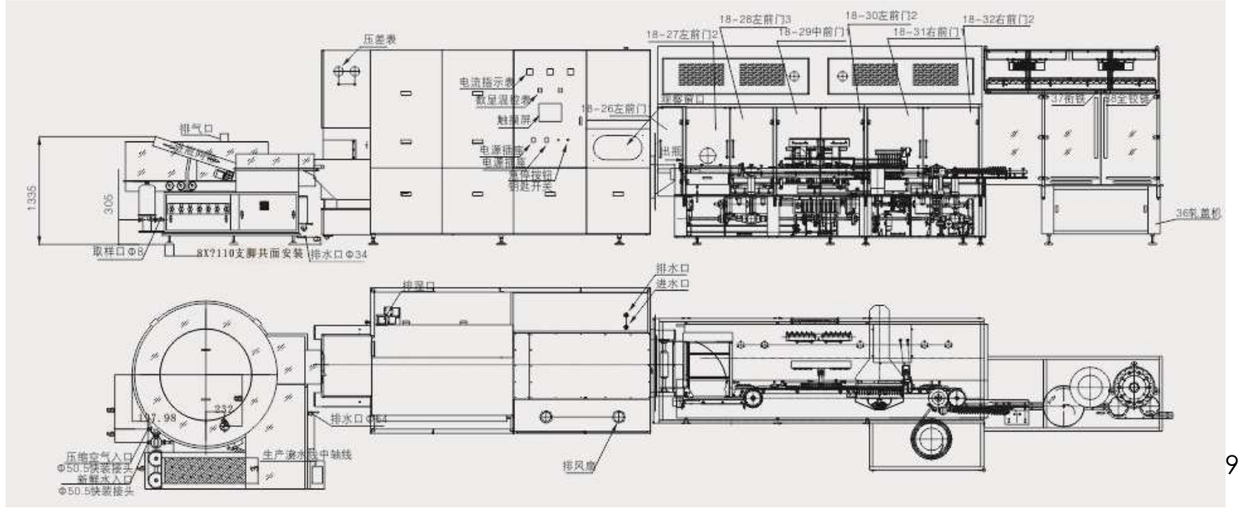


Process flow



Plane installation diagram



Main technical parameters

Product Model	RDW80+DDT620/48+DFS8		RDW80+DDT620/48DFS10	
Applications	2-25 ml	1-20 ml	2-10 ml	1-20 ml
Capacity	6000-18000	6000-23000	8000-2000	8000-2800
Cleanness	>99%			
Sealed (stopper) passing rate	>99%			
Quantity Error	According to National State Pharmacopoeias standards of China			
Fresh Water Consumption and Pressure	Consumption: 0.4 - 1.0 m3/h Pressure: 0.2- 0.3 mpa			
Purified Compressed Air Consumption and Pressure	Consumption: 30 - 75 m3/h Pressure: 0.25- 0.35 mpa			
Sterilizing Temperature	300 °C- 350 °C			
Exhaust Volume	500 m3/h	900 m3/h	500 m3/h	900 m3/h
Air cleanliness	100			
Gas Fuel Consumption and Pressure	/	1.5-2.5 m3/h 0.2-0.3 mpa	/	1.5-2.5 m3/h 0.2-0.3 mpa
Oxygen Consumption and Pressure	/	1.2-1.5 m3/h 0.2-0.3 mpa	/	1.2-1.5 m3/h 0.2-0.3 mpa
Vacuum pumping speed	20 m3/h	/	20 m3/h	/
Overall Dimensions	100			
Weight	7500 KG			
Power Capacity	380V 50HZ 71 KW			

STERILE POWDER FILLING LINE

PRO-RVM, PRODVT, PRO-PFM

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Summary

The Sterile model vial powder washing-drying-filling-capping-labeling production line is composed of the series vertical ultrasonic bottle washing machine, PRO-DVT tunnel hot air circulation sterilizing oven, PRO-PFM series digital screw injection powder filling machine, VCM capping machine and PRO-VLM labeling machine, which can also be used independently. Suitable for production of vial injection of 7-25ml. it can complete more than 20 procedures such as spray and water filling, ultrasonic rough washing, bottle exterior wall washing, bottle interior wall continuous secondary circulation water washing, primary blowing, primary fresh water washing, continuous secondary blowing, bottle exterior wall blowing, preheating, drying, sterilizing, pyrogen removing, cooling, filling, stoppering, capping, labeling, etc.

STERILE POWDER FILLING

PRO-RVM, PRODVT, PRO-PFM

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Performance features

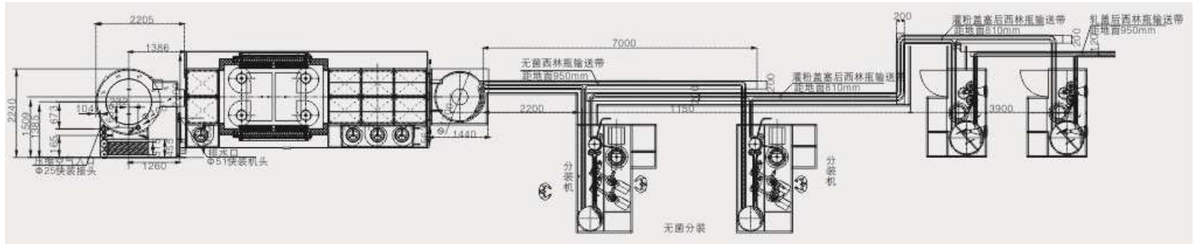
- The bottle washing machine adopts mechanical hands to clamp the bottles, suitable for vials of various specifications.
- The water—gas spray needles adopt the reciprocating tracking insertion mode for bottle washing, featured by good washing effect and energy saving. It is also provided with a device that prevents the needle holder from shaking to enhance the accuracy of the spray needle‘s insertion into the bottle and reduce the occurrence of needle breakage.
- The water and gas pipes are totally separable from the spray needles, so that cross contamination is avoided and GMP requirements are met.
- The buffer block is installed before the bottle feeding screw of the bottle washing machine to protect the screw and reduce bottle breakage.
- Bottle discharging is realized by the integral imported synchronous bell that is connected to the bottle pushing block and conveys ampoules with stable and reliable running.
- The oven adopts hot air circulation heating with even temperature and energy saving.
- The oven is provided with the function of protecting against sudden power-oft to ensure safe running.
- It also can be equipped with the circulation water cooling device that does not consume wind volume in the room, reduces the risk of unbalanced differential pressure in the room and achieves good cooling effect.
- The oven can be equipped with the differential pressure automatic balancing and regulating system to reduce the problems of deviation at the high temperature section caused by unbalanced differential pressure in the room and oven, temperature rise in the filling room, washing and drying room, etc.
- The oven is provided with DOP inspection ports (including inspection ports for wind pressure, wind speed and dust particles).
- The cooling section in the oven is provided with the sterilization function (specially chosen by FDA).
- The oven mesh belt can be equipped with the ultrasonic and CIP cleaning systems.
- The oven cavity can be subject to all-round, multi-angle high pressure water washing.
- The fitting machine adopts the world's most advanced design concept, featured by high speed, accurate filling and convenient replacement at parts.
- The filling machine adopts the AC servo motor to drive the filling screw to turn with accurate filling volume.
- The adjustment of filling volume of the filling machine can be realized through the touch screen.
- The filling machine can be equipped with the 100-grade circulation laminar flow hood.
- It is provided with the functions of no filling in case of no bottle and no stoppering in case of no bottle.

The whole line adopts PLC main control, frequency converter and touch screen control technology with stable and reliable running. The touch screen can display running dynamics of each single machine, water pressure, air pressure, wind pressure and temperature at each control point. The display of each on-off status and faults, fault sell-diagnosis, fault analysis and eliminating ways realizes automatic control during the whole production process. The production line is provided with the three-machine automatic control and balancing device to ensure balanced and reliable production.

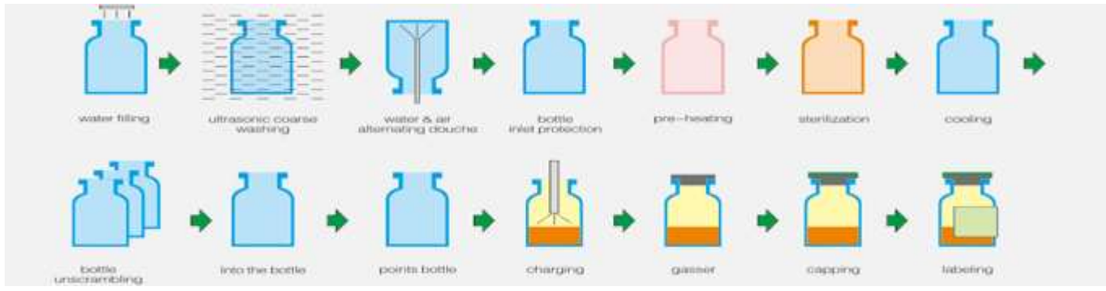
According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens. Schneider, Mitsubishi, Delia. etc;
- Water pressure, air pressure, water temperature, ultrasonic strength, dust particles and wind speed online inspection, alarming, recording and printing systems;
- ORABS, CRABS, aseptic isolator system.

Performance features



Process flow



Main technical parameters

Product Model	7-25 ML 7-25 ML GBvial	
Applications	300 pcs min	600 pcs min
Yield Capacity	≥99%	
Vials qualified washing rate	≤.1%	
Vials Breaking rate while washing	300 °C- 350 °C	
Sterilizing Temperature	≤ ± 3% (0.1-10h)	
Filling error	≥99%	
Qualified stoppering rate	100c	
Air laminar flow cleanness	25m3/H 100cbm/H(optional)	25m3/H 100cbm/H(optional)
Air displacement	96 kw	235.5 kw
Power Supply	380v, 50 HZ	
Gross Weight	Approx 8200 Kg	
Outside Dimension	Approx 2000x 1750x 2370mm	

ORAL LIQUID LINE

PRO-RVW, PRO-DVT, PRO-OLM

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Summary

The oral liquid washing-drying-filling-capping production line is composed of the PRO-RVW series vertical ultrasonic bottle washing machine, PRO-DVT tunnel hot air circulation sterilizing oven and PRO-OLM series oral liquid filling-capping machine. Suitable for production of oral liquid bottles of 2-25ml, it can complete such procedures as water spray, ultrasonic washing, water filling, gas charging, drying, sterilizing cooling, filling, capping, etc.

ORAL LIQUID LINE

PRO-RVW, PRO-DVT, PRO-OLM

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The whole line adopts PLC main control, frequency converter and touch screen control technology with stable and reliable running. The touch screen can display running dynamics of each single machine, water pressure, air pressure, wind pressure and temperature at each control point. The display of each on-off status and faults, fault self-diagnosis, fault analysis and eliminating ways realizes automatic control during the whole production process. The production line is provided with the three-machine automatic control and balancing device to ensure balanced and reliable production.

According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc;
- Water pressure, air pressure, water temperature, ultrasonic strength, dust particles and wind speed online inspection, alarming, recording and printing systems;
- ORABS, CRABS, aseptic isolator system.

Performance features

- The bottle washing machine adopts mechanical hands to clamp the bottles, suitable for bottles of various specifications.
- The water-gas spray needles adopt the reciprocating tracking insertion mode for bottle washing, featured by good washing effect and energy saving. It is also provided with a device that prevents the needle holder from shaking to enhance the accuracy of the spray needle's insertion into the bottle and reduce the occurrence of needle breakage.
- The water and gas pipes are totally separable from the spray needles, so that cross contamination is avoided and GMP requirements are met.
- The buffer block is installed before the bottle feeding screw of the bottle washing machine to protect the screw and reduce bottle breakage.
- Bottle discharging is realized by the integral imported synchronous belt that is connected to the bottle pushing block and conveys oral liquid bottles with stable and reliable running.
- The oven adopts the infrared heating tube and stainless steel heating tube so that the heating temperature has good evenness.
- The filling-capping machine can be equipped with the ceramic pump and stainless steel pump.
- The filling-capping machine is provided with the functions of no filling in case of no bottle and no capping in case of no bottle.

ORAL LIQUID LINE

PRO-RVW, PRO-DVT, PRO-OLM

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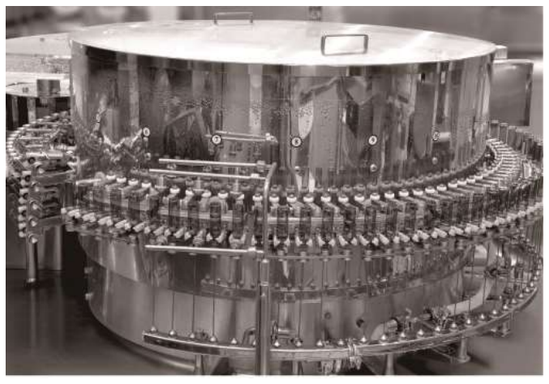
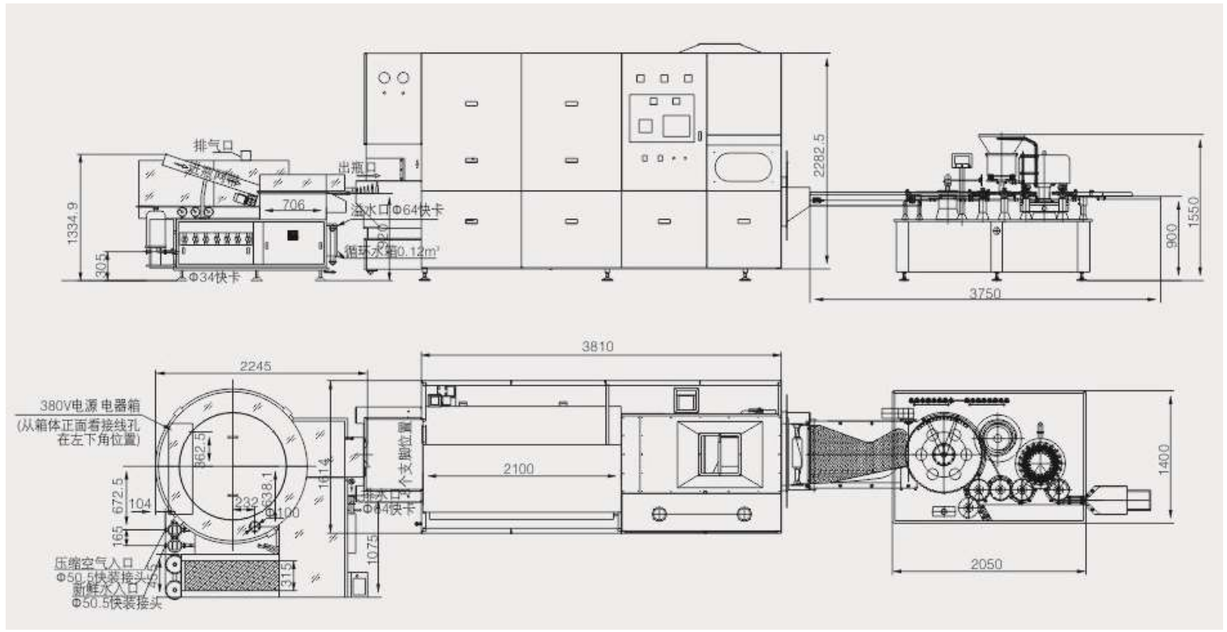
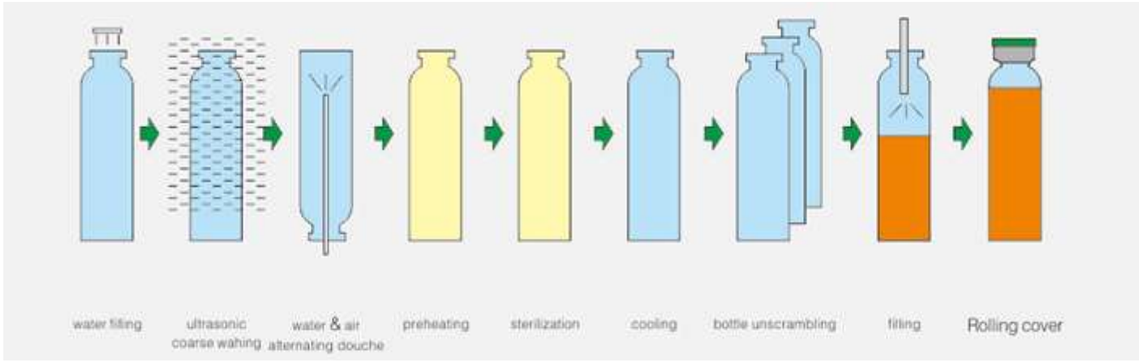


Plane installation diagram



Process flow



Main technical parameters

Application	**5-25ml**
Yield Capacity	350 pcs/min
Filling error	≤ ± 2%
Filling quotas	15
Number of rolling curtain	12
Qualified capping	≥ 99%
Gross Weight	7500 KG
Outside Dimension	9920x 2003x 2150 mm

ROTARY WASHER

PRO-RAW, PRO-RVW, PRO-RDW

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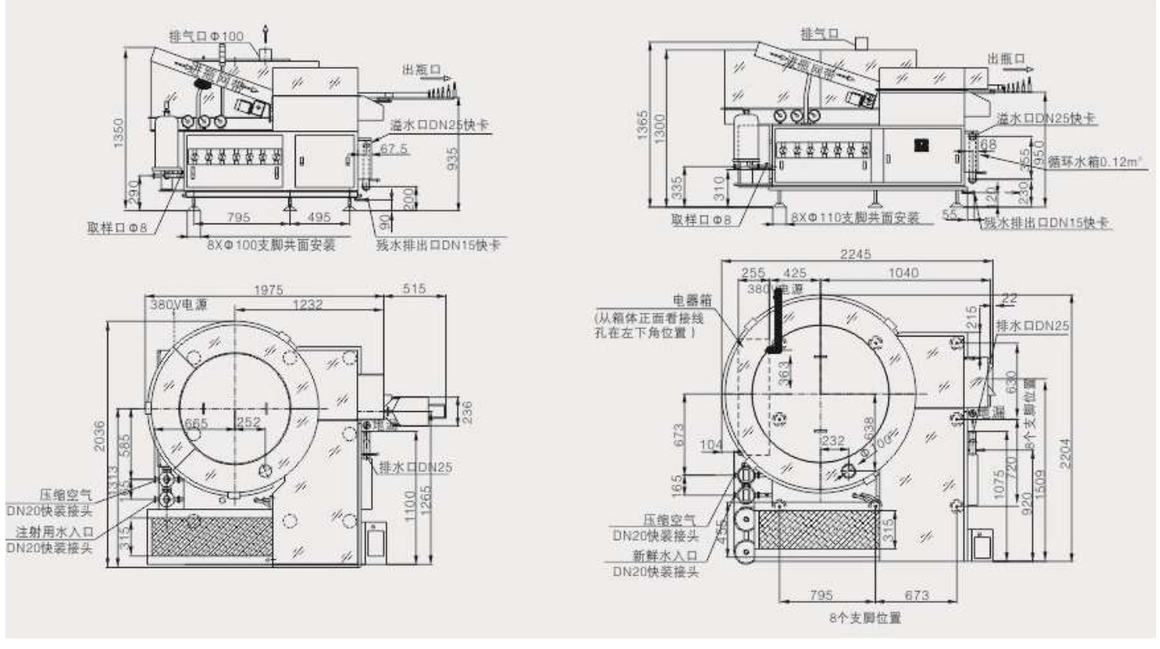
Summary

The series vertical ultrasonic washing machine is a new product successfully researched and developed by our company after years of efforts through digesting and absorbing domestic and overseas technologies according to our national conditions. With such features as advanced technology, simple structure, stable and reliable running, low noise, easy operation and easy cleaning, the product is suitable for washing tube bottles or molded antibiotic bottles, and can also be used for washing injection ampoules and oral liquid bottles.

According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Dellai, etc.
- Water pressure, air pressure, water temperature, ultrasonic strength, dust particles and wind speed online inspection, alarming, recording and printing systems.

Plane installation diagram



ROTARY WASHER

PRO-RAW, PRO-RVW, PRO-RDW

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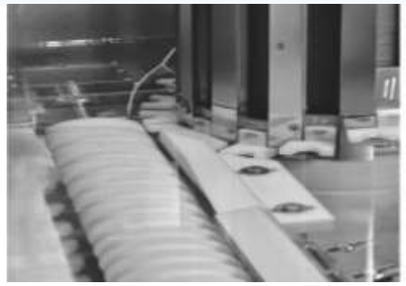
Performance features

With a vertical rotary drum structure the machine adopts mechanical hands for clamping and turning, and the spray tube carries out reciprocating tracking. Ultrasonic washing and water & gas alternate jetting washing are carried out. The whole process including bottle feeding, ultrasonic washing, external washing, internal washing and bottle discharging can be completed automatically. The overall transfer process simulates the gear external engagement principle. The machine has such features as low bottle breakage rate, good adaptability and stable running. As there is no cross contamination of water and gas pipes, it fully meets GMP requirements.

- The two-section mesh belt structure is adopted for bottle feeding to ensure that the bottles have sufficient thrust in water and no bottle shortage will occur at the screw.
- The buffer device is set at the screw bottle feeding place to ensure no bottle breakage at the bottle feeding place and the wear of screw. The screw is made of innoxious and pollution-tree polyformaldehyde. The central shaft is stainless steel shaft for reinforcement to ensure no deformation of the screw.
- It is provided with a device that prevents the needle holder from shaking to enhance the accuracy of the spray needle's insertion into the bottle and reduce the occurrence of needle breakage.
- The mechanical hand extended rod and large disc are provided with the oil leakage prevention structure to ensure that lubrication oil will not pollute the water tank.



Main technical parameters

Model	RW60	RW80	RW100	RW120	RW120X
Adaptable Specification	1-20 ml Ampoule 2-25 ml Vial	1-20 ml Amp 2-25 ml Vial	1-20 ml Ampoule 2-25 ml Vial	1-20 ml	1-2 ml
Output (Bottle/min)	200-300	150-400	200-500	250-600	700
Bottle washing clearness qualified rate	≥99%				
Breakage rate	≤0.3%				
Water Consumption	0.4-0.6 m3/h 0.2-0.3mpa	0.6-0.8m3/h 0.2-0.3mpa	0.8-0.9m3/h 0.2-0.3mpa	0.9-1m3/h 0.2-0.3mpa	1-1.3m3/h 0.2-0.3mpa
Gas consumption	40-50m3/h 0.25-0.35mpa	50-60m3/h 0.25-0.35mpa	55-65m3/h 0.25-0.35mpa	65-75m3/h 0.25-0.35mpa	75-90m3/h 0.25-0.35mpa
Outline Dimension (KxWxH) mm	2099x20003 x1169mm	2260x2260 x1327	2099x2003 x1169	2260x2260 x1327	2260x2260 x1327
Machine Weight	2000kg	2400kg	2000 kg	2400kg	2400kg
Power Supply	380v/50Hz				
Power	17.6kw				

Model	RW40	RW160	RW180	RW
Adaptable Specification	25-100ml Vial	2-25ml Vial	1-5ml Ampoule	50-500ml
Output (Bottle/min)	140-200	400-540	600-700	80-100
Bottle washing clearness qualified rate	>99%			
Breakage rate	<0.3%			
Water Consumption	0.4-0.5 m3/h 0.2-0.3mpa	0.9-1 m3/h 0.2-0.3mpa	0.8-0.9 m3/h 0.2-0.3mpa	0.4-0.5 m3/h 0.2-0.3mpa
Gas consumption	40-50m3/h 0.25-0.35mpa	65-75m3/h 0.25-0.35mpa	60-65m3/h 0.25-0.35mpa	20-30m3/h 0.25-0.35mpa
Outline Dimension (KxWxH) mm	2099x2035x1350	2475x2350x1350	2099x2035x1350	2100x1735x1330
Machine Weight	2000kg	2500kg	2000kg	1200kg
Power	17.6kw			12kw

TUNNEL

PRO-DAT, PRO-DVT, PRO-DDT

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Summary

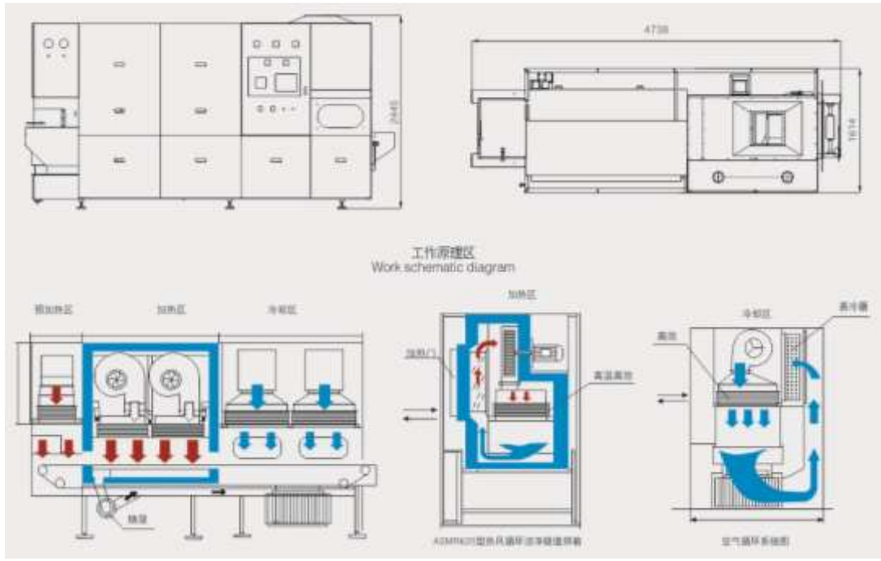
With an integral tunnel structure, the machine includes three parts such as the preheating area, high temperature sterilizing area and cooling area. It adopts the hot air laminar flow disinfection principle to carry out instant high temperature sterilization of the vessel. It is suitable for drying and sterilization of ampoules, antibiotic bottles, oral liquid bottles and other medicinal glass bottles. The machine adopts the advanced PLC man machine interface control system. Through the man-machine interface control, the work status of the machine is monitored and the requirements for production processes are met, and besides, combined control of the work status of the cleaning equipment and filling equipment, display of fault causes, locations, simple eliminating ways, etc. can be realized. In addition, temperature and curves can be recorded automatically.

- It is provided with the power-off prevention self-heating device at the high temperature section, so there is no hidden risk of fire.
- Process parameters relating to heating, running, etc. are preset.
- The parameter status is displayed and records are printed automatically.
- The circulation airflow is adjustable to ensure even temperature in the oven.
- Temperature measuring points are set in the oven and at the oven ports.
- It is provided with high efficiency filter DOP inspection ports.
- The whole machine is designed according to GMP requirements.

According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc.
- Dust particles online inspection, alarming, recording and printing systems.

Plane installation diagram



Main technical parameters

Model	DT620-35 (38)(air)	DT640-43 (air)	DT620-48 (air)	DT800-55 (air)	DT1250-6000(air)	DT620-43 (water)	DT620-48 (water)	DT800-56 (water)
Applicable specifications	1-20 ml 2-25ml							
Effective with	620mm			800mm	1250mm	620mm	620mm	800mm
Max. sterilizing temperature	350°C							
Temperature at unloading port	<40°C							
Water	No					Temperature: 8°C Consumption: 3T/h		
Air exhaust	3000-4000m3/h	3500-4100m3/h		6600-8200m3/h	8500-9500m3/h	300m3/h		
SIP for cockling section	Not included					not	included	included
Total power	27.7kw 21.6kw	51kw 43kw	71kw 60kw	78kw 60kw	196kw 172kw	51kw 43kw	104kw 60kw 32.4kw	152kw 78kw 46.8kw
Cleanness	International Level 3 (USA Industry requires level 100)							
Outside dimension (on user request)	3550x1760x 2343mm	4388x1465x 2445mm	4738x1614x 2445mm	5480x1950x 2210mm	6200x2936x 2670mm	4385x2050x 2385mm	4887x1831x 2343mm	6000x1870x 2370mm
Weight	2300 kg	3000 kg	3500 kg	4000 kg	6000 kg	3500 kg	4000 kg	4500 kg

SERIES VERTICAL FILLING-SEALING MACHINE

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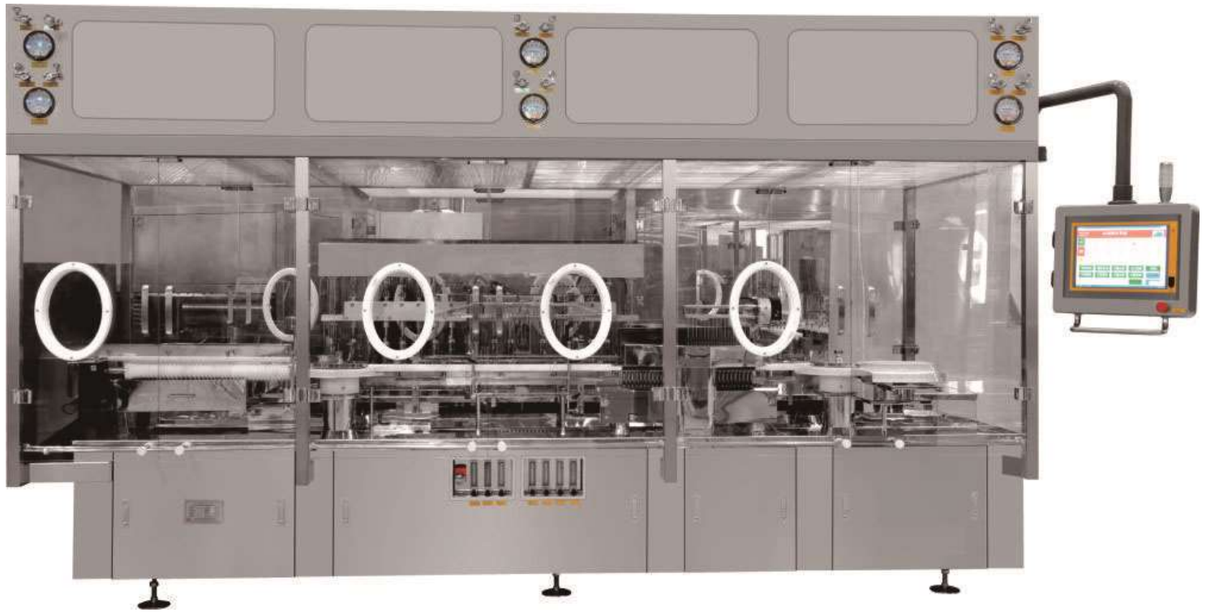
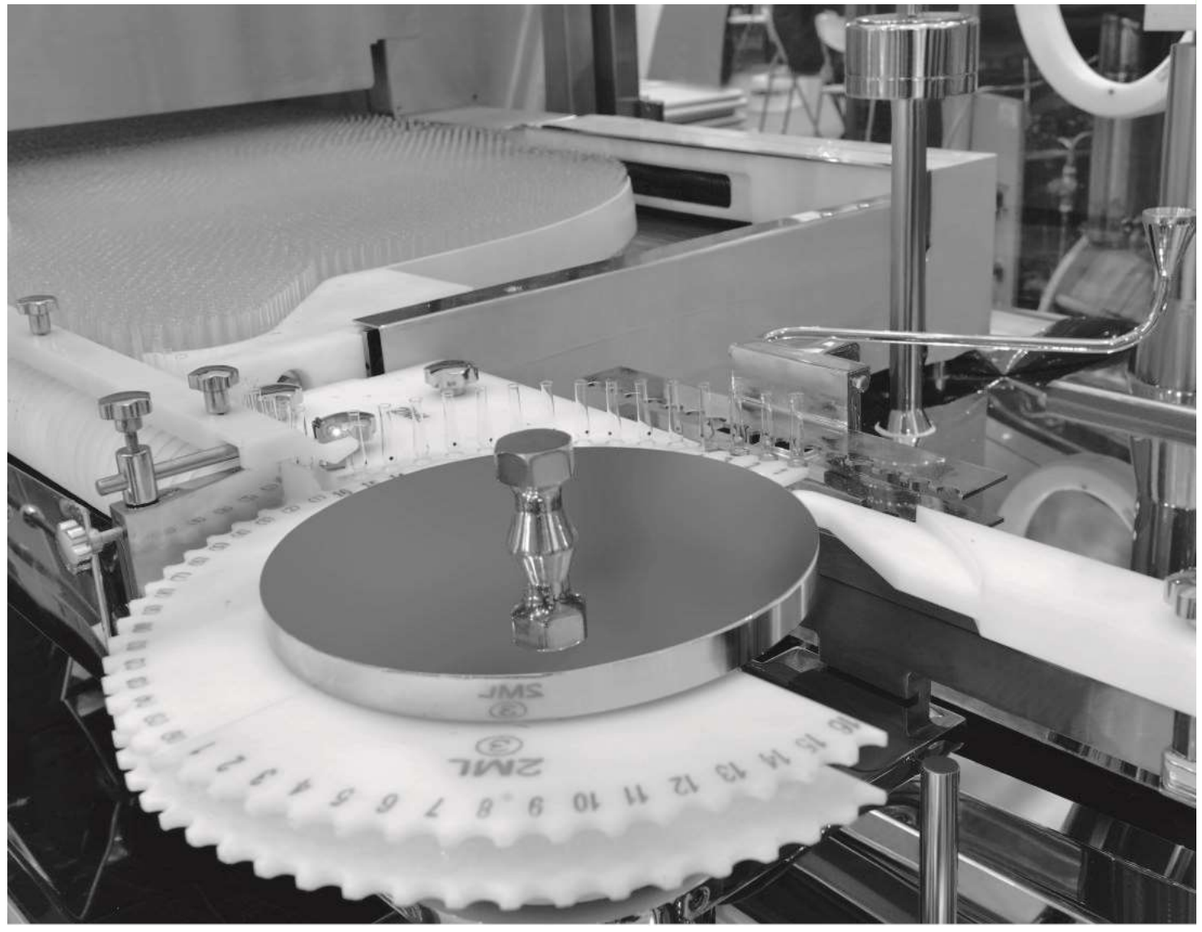


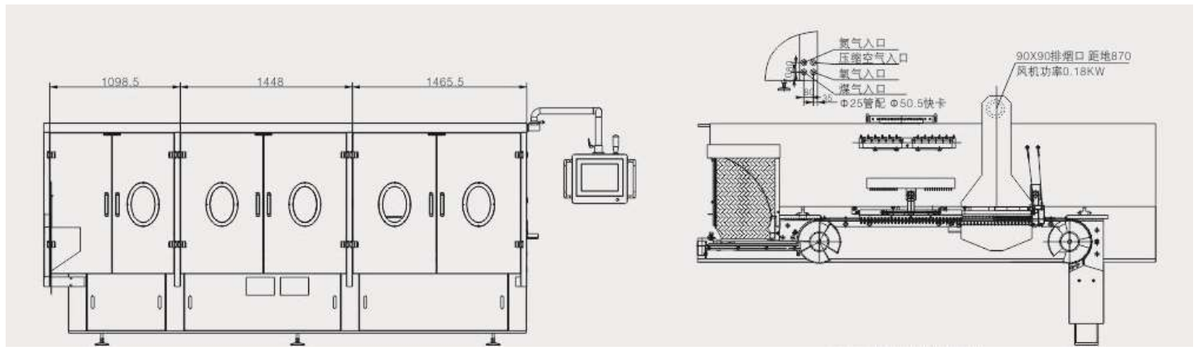
Summary

The machine is mainly used for filling and sealing ampoules in pharmaceutical plants under aseptic conditions. The machine adopts the stepping type conveying system in the arrangement of 8, 10, 12, 16 work stations with a balcony structure to send bottles with 8, 10, 12, 16 ones in a group to each procedure.

Such procedures as separation, bottle conveying, front nitrogen charging, medicine filling, rear nitrogen charging, preheating, wire drawing, sealing, etc. are completed automatically. It is suitable for filling and sealing of ampoule injection under aseptic conditions.



Plane installation diagram



SERIES VERTICAL FILLING-SEALING MACHINE

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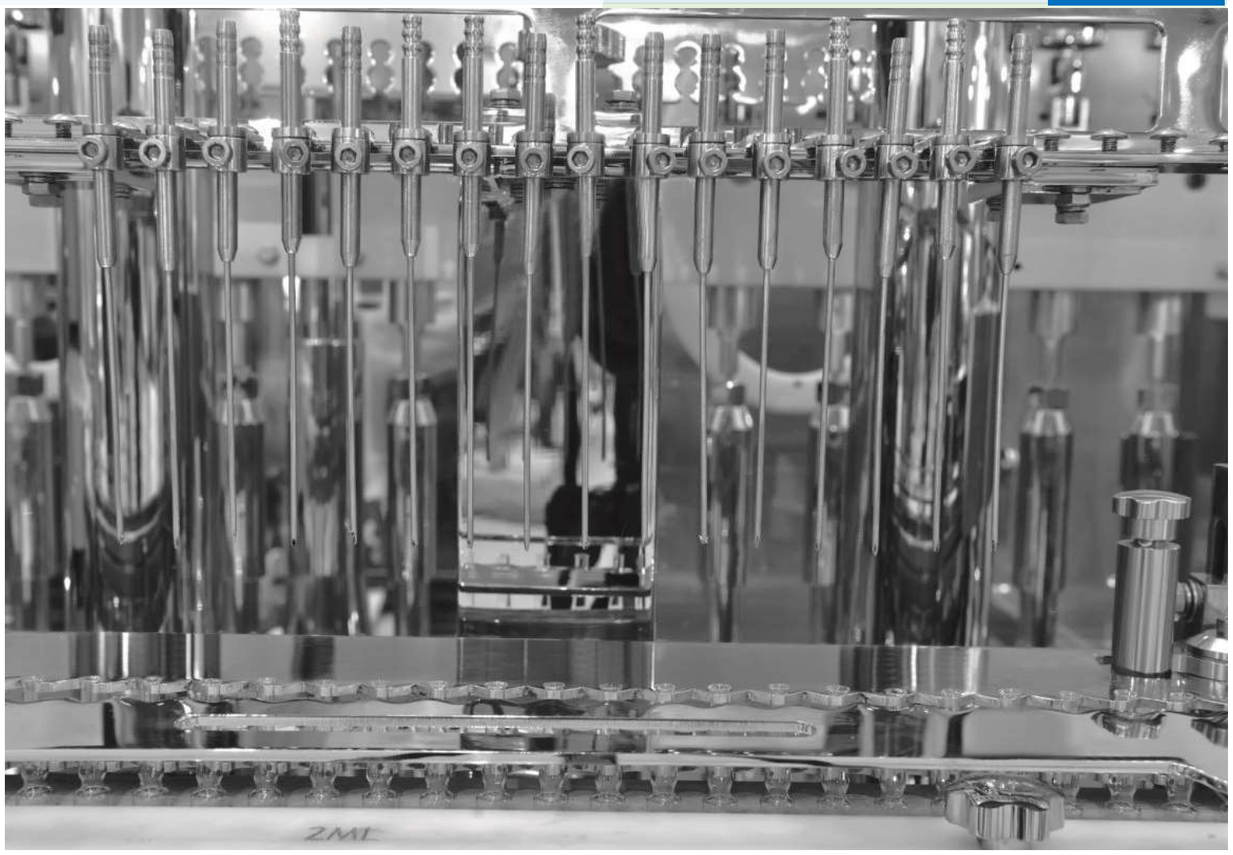
Performance features

- The previous three-section sector block structure is changed into the integral pulling wheel structure. The auger is connected with the integral pulling wheel. The connection of the integral pushing wheel with the small travel beam is more stable and there is no broken bottle, so that the defect that the old-fashioned sector block structure is hard to adjust and easy to loosen and dislocate is solved.
- In the driving part, the previous chain driving is changed into the synchronous toothed belt driving, featured by more stable driving and lower noise.
- The bottle moving distance and the interval between bottles are reduced. The length of the travel beam is almost 1/2 of the previous length. With good rigidity, the travel beam moves more stably.
- In the moving and guiding structure of the travel beam, the sliding sleeve type is changed into the rolling guide rail type to make the travel beam move more flexibly and its rigidity is also improved.
- The filling work station is designed with the special bottle positioning device, which realizes simpler and more accurate bottle positioning, and more reliable insertion of the filling needle into the bottle mouth.
- The heating device is provided with the convenient height adjustment device, which makes height adjustment simpler when replacing specifications.
- In the new type bottle turning mechanism the previous taper gear driving is changed into the synchronous toothed gear driving, which provides simpler driving and avoids the occurrence of easy wear and easy slippage in the previous taper gear structure.
- The new type split wire drawing box structure is featured by beautiful appearance, simpler and faster installation and commissioning
- Through the new type bottle leaning beam adjustment mode, just turn the knob when replacing specifications, without the need to carry out tedious alignment work.
- The pin positioning structure is adopted for replacement of specifications No adjustment is needed when replacing specifications. The parts that need frequent disassembly are all designed as the quick disassembly type, so as to greatly enhance the disassembly speed and save time.
- The machine frame adopts the integral welding type to achieve better rigidity and better machine stability. There are few objects on the plate, so that cleaning and maintenance are facilitated.
- The machine is under a closed laminar flow system, which has better laminar flow effect. All structures are designed with an aim to achieve the best laminar flow effect.
- It is provided with the automatic control device for bottle feeding. In case of bottle jamming, the washing machine will be automatically instructed to pause bottle feeding, and in case of bottle shortage, auger bottle feeding will be automatically cut off.
- The standard configuration for the filling system of the machine is glass metering pump. According to different user requirements, it can be equipped with the metal metering pump, peristaltic pump or ceramic pump. The standard machine adopts the cam control filling. Manual adjustment of a single pump and gang adjustment can be carried out. The luxurious model machine adopts the servo control filling with high filling precision. Gang adjustment and individual adjustment can be carried out quickly, conveniently and precisely on the touch screen. The parameters after adjustment can be saved for future use. (Various groups of parameters can be saved.) It is suitable for users who frequently change the filling volume.

According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc;
- Water pressure. air pressure, water temperature, ultrasonic strength, dust particles and wind speed online inspection, alarming, recording and printing systems;
- ORABS, CRABS, aseptic isolator system.



Main technical parameters

Product model	AFS8/1-20	AFS10/1-20	AFS12/1-20	AFS16/1-2
Applications	Ampoule: 1-20ml	Ampoule: 1-20ml	Ampoule: 1-20ml	Ampoule: 1-2ml
Capacity (pcs/h)	1-2ml 22000	1-2ml 24000	1-2ml 28000-30000	1-2ml 42000
	5ml 16000	5ml 18000	5ml 20000	
	10ml 11000	10ml 15000	10ml 18000	
	20ml 6000	20ml 68000	20ml 12000	
Quantity error	According to National State Pharmacopoeias Standards of China			
Gas fuel consumption and pressure	Consumption: 1-5-2.5m³/h Pressure: 0.2-0.3 mpa			
Oxygen consumption and pressure	Consumption:1.2-1.5m³/h Pressure: 0.2-0.3 mpa			
Overall dimension (LxWxH)	Approximately 3791x1441x2380/4012x2088x2530mm			
Weight	Approx. 2500kg			
Power capacity	380V 50Hz approx. 2.2KW			

AMPOULE INCLINED FILLING MACHINE

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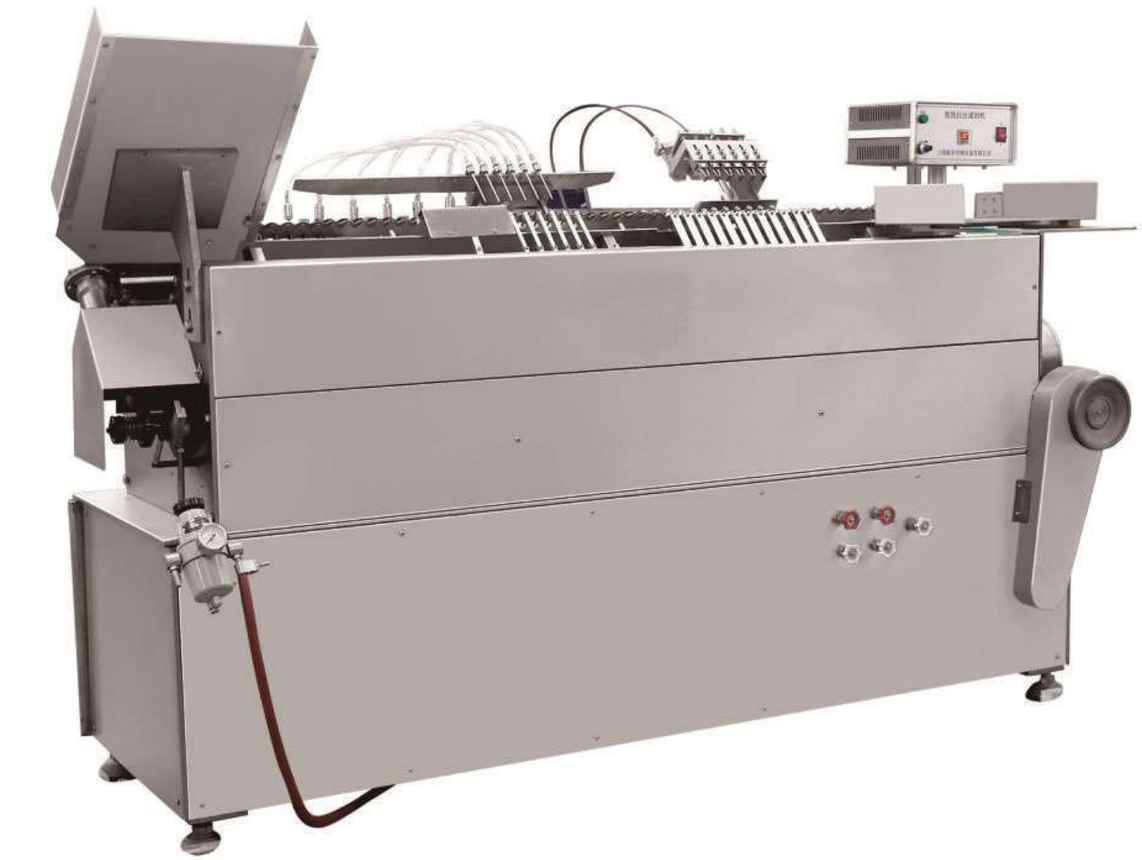
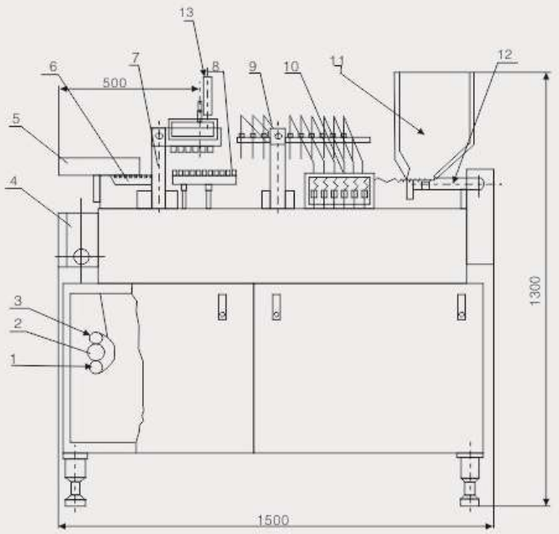
Summary

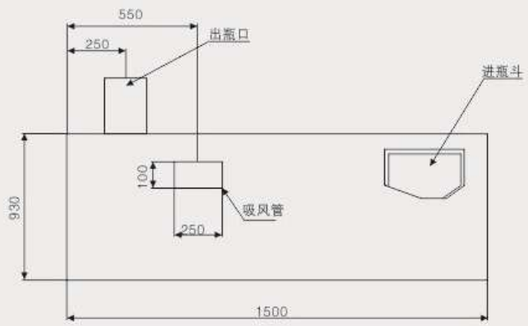
The machine is a new generation single-machine multi-needle inclined filling machine. It is designed with the rectangular bottle conveying mode to make ampoule conveying more stable and the bottle breakage rate lower. A new type clutch device is installed for hopper bottle feeding, which can stop conveying ampoules without stopping the machine, so as to reduce the consumption of ampoules. In the filling stopping system, the electromagnetic switch is changed into the mechanical filling stopping with strong reliability. The bottle discharging structure abandons the traditional bottle conveying mode, making bottle unscrambling more reasonable and the rate of finished products higher.

Our factory is the first manufacturer in China adopting molded fittings to produce pharmaceutical machinery. The main parts are precision stainless steel castings that ensure precision and interchangeability of parts. Secondly, the stainless steel piston is adopted for filling, so that dripping is controlled, carbonization is avoided and accurate filling volume is ensured.



Plane installation diagram





1、氧气贮气罐
2、电动机
3、煤气贮气罐
4、减速箱
5、出瓶斗
6、送瓶机构
7、拉丝钳架
8、火头架
9、吹罐针架
10、灌装机构
11、进瓶斗
12、进瓶输送机构
13、吸风管

AMPOULE INCLINED FILLING MACHINE

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Differences with other products

Our company is the earliest factory developing 45° inclined integrated multi-pin Bottling& Capping wiredraw machines, and its users are overall China.

Model Project	AAG series from our company	Other products
Materials	Surface and main exterior parts are all made of stainless steel, and main cam undergoes nitrogen hardening treatment to prolong service life for several times.	Surface and main exterior parts are common steel parts, likely to stain; cam is steel part without nitrogen treatment with great abrasion.
Performance	Stable operation, highly efficient, excellent to 1ml bottling and capping process mechanical. Capping process is reliable.	Great shocks, unsuitable for 1ml production, likely to have electromagnetic failures.
Electrical appliances configuration	Imported Panasonic frequency converter and Schneider power supply switches are used.	Without frequency converter or poor-performance, converters and common switches its performance will be unstable.

Main technical parameters

Model	AAG4	AAG4	AAG4	AAG6	AAG6	AAG6	AAG8	AAG8	AAG8
Specification	1-2	5-10	5-20	1-2	5-10	5-20	1-2	5-10	5-20
Capacity (pcs/hr)	6000-8000	5000-6000	3600-6000	9000-12000	6000-100000	6000-10000	9000-16000	10000-13500	7000-13500
Power (Kw)	0.35	0.55	0.55	0.55	0.75	0.75	0.75	1.5	1.5
Fuel consumption	1-2m^3/h			2-3 m^3/h			3-5 m^3/h		
Gas & pressure	0.08-0.1Mpa(LPG)								
Combustion-supporting consumption	0.7-1 m^3/h Oxygen 0.1Mpa						1.5 m^3/h Oxygen		
Outline dimension (mm)	1500 x930 x13w00	1500 x980 x1300	1920 x980 x1300	1500 x930 x1300	1980 x930 x1300	1980 x980 x1300	1920 x930 x1300	2300 x980 x1300	
Machine weight (kg)	NW: 300 GW:350	NW:480 GW:530	NW:500 GW:550	NW: 300 GW:350	NW:480 GW:530	NW:500 GW:550	4880	550	580
Power supply	380v 50Hz	220v/380v 50Hz		220v 50Hz (frequency converter)					

VIAL SERIES LIQUID FILLING-STOPPERING MACHINE

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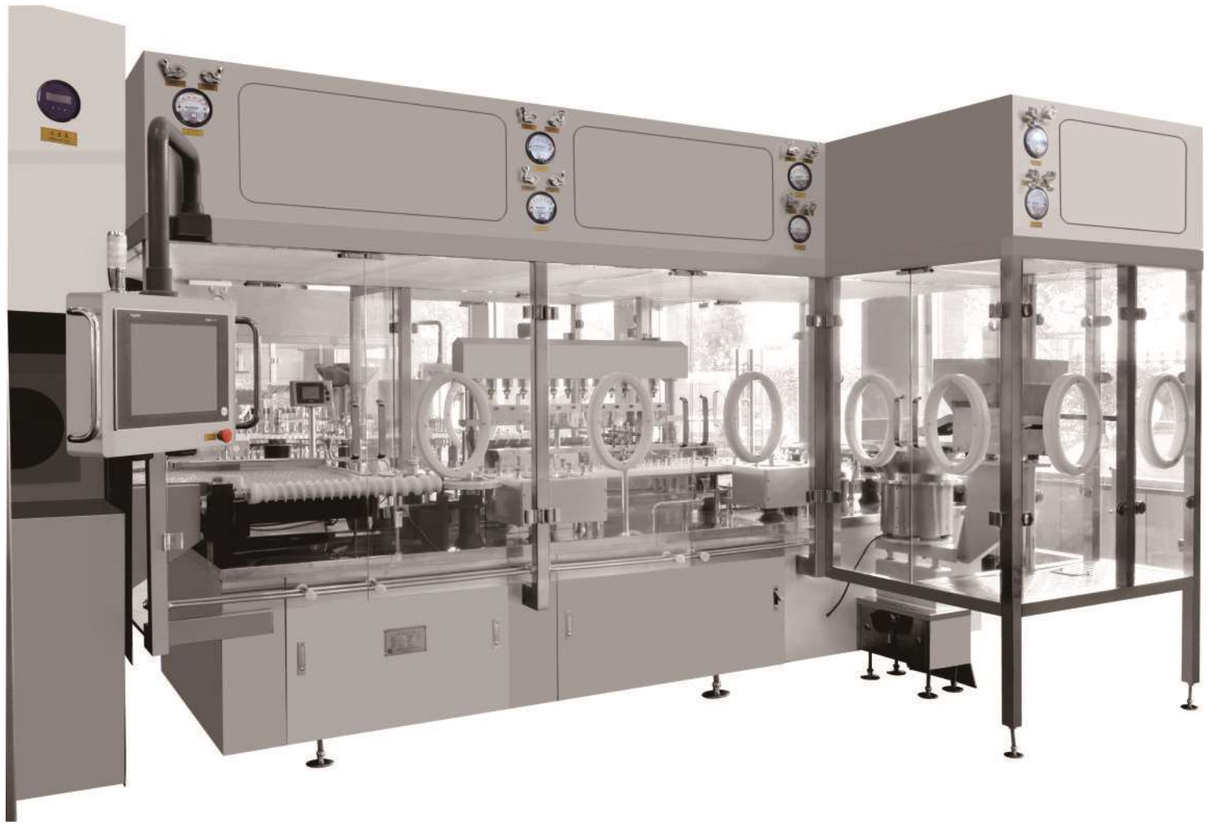
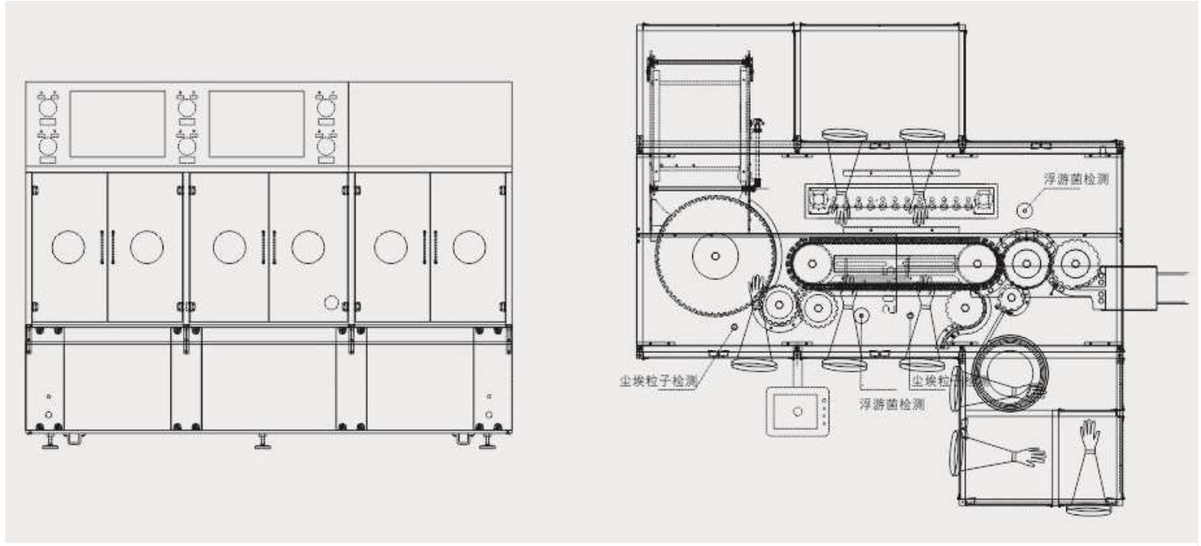


Summary

The KGF series vial liquid filling-stoppering machine adopts 10-needle linear tracking filling. The rotary table vacuum stoppering and stopple pressing are carried out. The new type ceramic plunger metering pump is featured by high precision, high efficiency and high speed.

The machine adopts the PLC control with mechanical and electrical integration, provided with the functions of no filling in case of no bottle and no stoppering in case of no bottle. The surfaces are made of high quality stainless steel, conforming to GMP requirements.

Plane installation diagram



VIAL SERIES LIQUID FILLING-STOPPERING MACHINE

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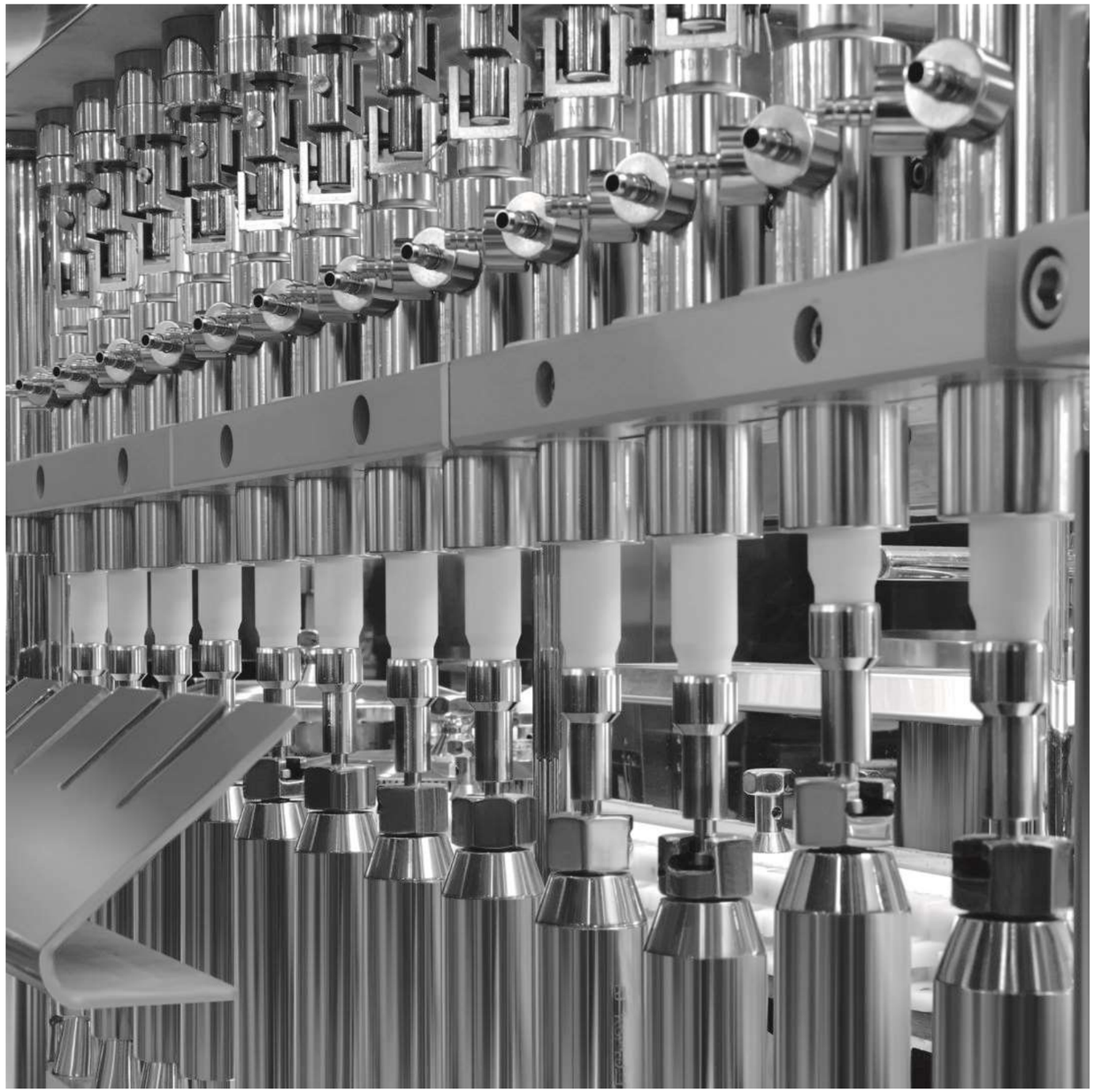

Performance features

- The machine integrates advanced intelligent electric control technology and simple and visual man-machine interface, realizing the perfect design of mechanical and electrical integration.
- In the main driving system, remote segments adopt the high strength PU synchronous belt and near segments adopt the large pushing wheel to enhance the safety factor and prolong equipment service life.
- The servo motor is adopted for tracking. The tracking speed is identical to the bottle conveying speed so as to effectively avoid needle contact with the bottle inner wall. The return travel adopts the quadratic polynomial curve. There is no sudden change in the speed and acceleration, and mechanical impact is almost zero, so the machine works stably.
- In the aspect of filling, as a breakthrough to the traditional cam swinging rod structure, the servo motor of high precision and small step angle and the stable and reliable servo drive are adopted. The motor shaft rotation movement is converted by the pre-pressing ball screw nuts into linear movement required by the ceramic pump plunger, so as to form a high-precision servo filling structure. Through the main machine interface, different pulse values are set for the servo motor to meet different filling volume requirements. Fine adjustment of a certain pump can be carried out.
- The stainless steel laminar flow frame is installed outside the main machine. The frame is mainly round. With beautiful appearance and no sanitation dead zone, it ensures that the machine works in the clean area.

According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc;
- Dust particles online inspection, alarming, recording and printing systems;
- CRABS, CRABS, aseptic isolator system.

Main technical parameters

Product model	VFM4	VFM6	VFM8	VFM10	VFM12	VFM20	VFM24
Applicable specifications	2-2ml international vials						
Filling quotas	4	6	8	10	12	20	24
Production capacity (2ml)	120 pcs/min	180 pcs/min	200 pcs/min	300 pcs/min	400 pcs/min	500 pcs/min	650 pcs/min
Quantity error	≤±2% () ≤±0.5-1% ()						
Gasser percent of pass	≥99%						
Laminar air cleanness	100						
Vacuum pumping speed	10m^3/h	30 m^3/h	50 m^3/h	60 m^3/h	60 m^3/h	100 m^3/h	120 m^3/h
Power capacity	5KW						10KW
Power supply	380V 50Hz						
Weight	2300Kg		2500Kg				4800Kg
Overall dimensions	3230x2540x2430				3399x3133 x2430	3950x2600 x2430	3300x5700 x2430

DUAL SERIES FILLING-SEALING-STOPPERING

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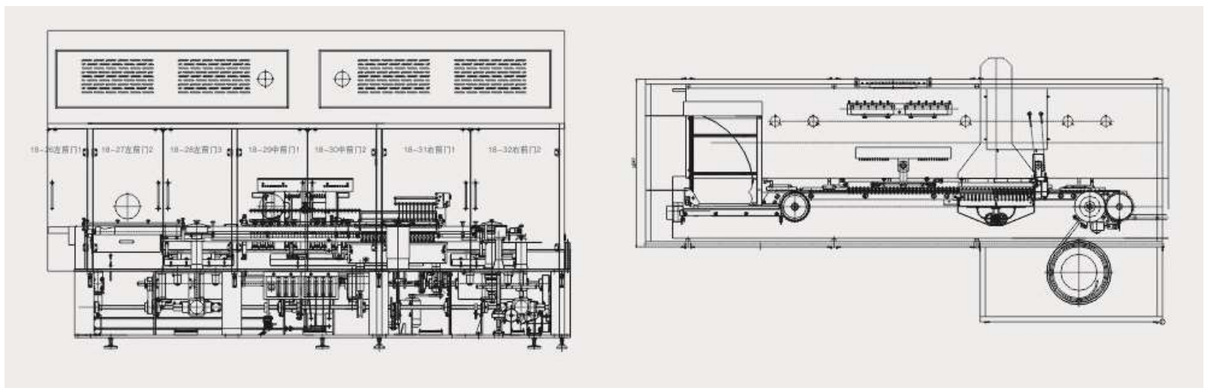
Summary

The machine is suitable for high-precision filling of ampoules and vials, as well as filling and sealing of ampoules and automatic stoppering or semi-stoppering of vials. It adopts PLC control, integrates advanced intelligent electric control technology and simple and visual man-machine interface, realizing the perfect design of mechanical and electrical integration. It is provided with the functions of no filling in case of no bottle and no stoppering in case of no bottle. The surfaces are made of high quality 304 stainless steel, conforming to GMP requirements.

Plane installation diagram



DUAL SERIES FILLING-SEALING-STOPPERING

SHINVA

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Performance features

- The filling machine can be used for filling of ampoules and can also be used for filling, stoppering and semi-stoppering of vials.
- The filling machine is provided with sufficient gas charging work stations to ensure one-off charging. The completion of the procedures of front and rear nitrogen charging and filling fully guarantees the filling quality.
- The filling machine is provided with the functions of no filling in case of no bottle and no stoppering in case of no bottle, so that there is no waste of liquid medicines.
- The filling-sealing machine can be equipped with the 100-grade laminar flow hood, which can also be provided by users.

According to customer requirements, it can also be equipped with the following:

- Control system of such brands as Siemens, Schneider, Mitsubishi, Delta, etc;
- Dust particles online inspection, alarming, recording and printing systems;
- DRABS, CRABS, aseptic isolator system.

Main technical parameters

Product Model	**DFS 8**		**DFS 10**	
Applicable specifications	Ampoules: 2-25 ml	Vial: 1-20ml	Ampoules: 2-25 ml	Vial: 1-20ml
Production capacity	6000-18000p/h	6000-23000p/h	8000-20000p/h	800-28000p/h
Quantity error	According to National State Pharmacopoeias Standards of China			
GAS consumptions and pressure	/	C: 1.5-2.5m^3/h P:0.2-0.3mpa	/	C: 1.5-2.5m^3/h P:0.2-0.3mpa
Oxygen consumption and pressure	/	C: 1.2-1.5m^3/h P:0.2-0.3mpa	/	C: 1.2-1.5m^3/h P:0.2-0.3mpa
Vacuum pumping speed	20m^3/h	/	20m^3/h	/
Vacuum exhaust	500L/min			
Overall dimensions	LxWxH: Approx. 3488x178x2380mm			
Wight	2600Kg			
Power capacity	380V 50Hz 3KW			

HIGH SPEED SCREW FILLING MACHINE

SHINVA

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Summary

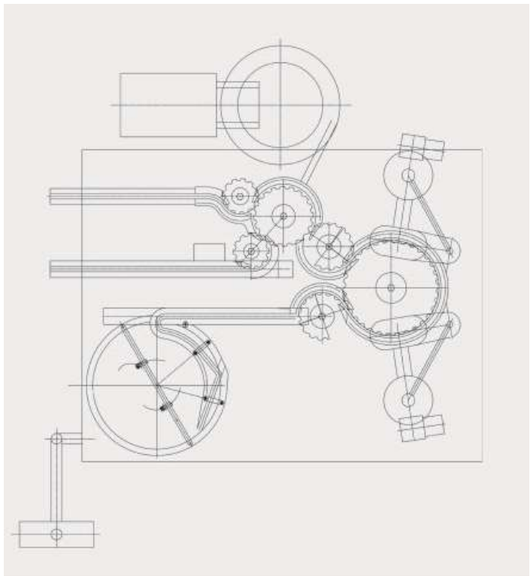
The KFJ-300 series high-speed screw filling machine is a latest product researched and developed by our company. It is used for quantitative filling of molded or glass vials with diameter of 4 18 (0 43mm and height 40 - 73 mm for crystallized powders, spray dried powders and lyophilized powders.

It can carry out quantitative filling of aseptic powder medicines into sterilized and dried antibiotic bottles, which are sealed by stopples. It is one of the main equipment used for producing aseptic powders, powders for injection and preparations in pharmaceutical plants.

Performance features

- The filling machine is a piece of intermittent screw powder aseptic filling equipment. The whole machine adopts full servo motor driving, PLC control and touch screen man-machine interface operation.
- The sector pushing disc is adopted to combine the continuous bottle feeding and discharging movement with the intermittent filling movement, featured by high speed and stable running.
- The vial is filled with aseptic medicine powders in one step without secondary pollution.
- It is provided with various photoelectric sensor protectors and such features as machine stopping in case of no bottle, machine stopping in case of no stopple, no stoppering in case of no bottle, automatic sampling, etc.
- It can be equipped with the online nitrogen charging device and online analog filling device.
- It adopts RABS protection and protective enclosure for starting and stopping the machine. It can be equipped with the online monitoring device for microbes, dust particles and wind speed. The stopples and pharmaceutical materials adopt aseptic connection and transfer.

Plane installation diagram



Main technical parameters

Production capacity (bottle/min)	**Stable output: 300 (volume 1g can be up to 320gr)**
Load range (g)	0.1∼4g
Applicable specifications ((ml)	Crystalline powder, powder spraying, reducing
Load precision	The load difference is less than 2% pharmacopoeia standards
Hang cover rate	>99.9%
Power supply	Three-phase five line 380V 50Hz Total power 3.5KW
Machine size	2200x2400x2350
Wight	1500

ORAL LIQUID WASHING-DRYING-FILLING-CAPPING

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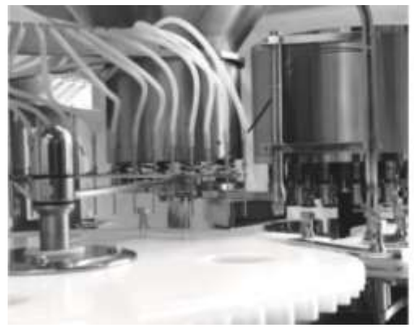
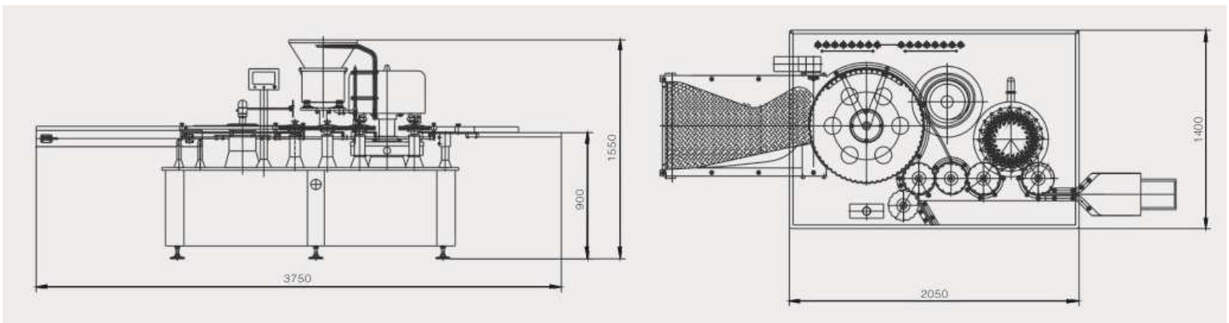


Plane installation diagram



Performance features

- With such features as simple structure, reasonable layout, easy repair, stable production, convenient operation and cleaning, etc., the machine can be used singly or for linked production. It is an ideal piece of special equipment for packaging of oral liquids.
- It adopts the bottle feeding mesh belt enlarged rotary table structure, avoiding bottle shortage and bottle falling during high speed production.
- It adopts the synchronous tracking technology with long filling time and high filling precision.
- The machines uses the glass pump to carry out quantitative filling with high precision. It is suitable for oral liquids and other liquids of certain viscosity.
- The filling needle adopts individual clamping technology and each filling needle can be adjusted independently.
- It has such features as single-needle type quantitative filling, no air bubble, long shelf life, etc.
- During normal running, the machine is provided with the functions of no filling in case of no bottle, machine stopping in case of no cap, and the rate of finished products is high.
- The driving part of the machine adopts the cam principle and round disc type positioning, so that positioning is correct during filling and capping.
- The control part adopts variable frequency speed adjustment and realizes step-less speed adjustment.

Summary

Suitable for molded or glass oral liquid bottles of 5m1-25m1, the YGZ series oral liquid filling-capping machine is a piece of equipment specially used for pharmacy, health care, food and other industries. It can be used individually, and can also work with the IDOL series vertical ultrasonic bottle washing machine, ASMR series tunnel sterilizing dryer and etc. to form a production line that integrates washing, drying, filling and capping, so as to realize automatic oral liquid filling and capping production. The machine can automatically complete the procedures such as bottle feeding, bottle sorting, bottle conveying, filling, cap falling, capping, bottle discharging, etc.

Main technical parameters

Model	OLM16
Using specifications bottle neck	5-25ml
Production capacity	250-400 bottles/min
Filling Quotas	16 heads
Number of rolling curtain	20 heads
Capacitance	1.5KW
Measurement error	≤±2%
Rolling cover percent of pass	99.9%
Machine dimensions	3700x1350x1545mm
Machine weight	1500kg

CAPPING MACHINE

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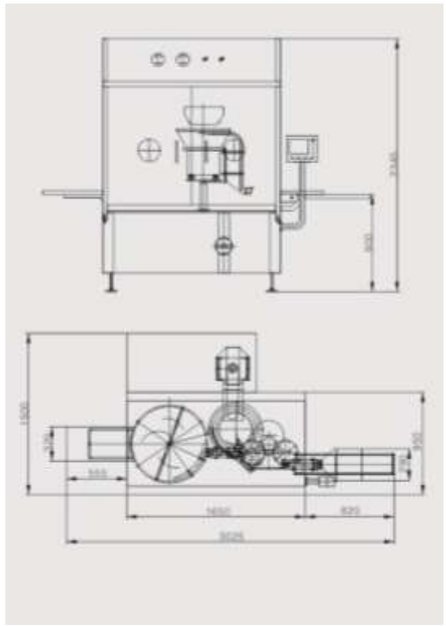
Summary

The capping machine is featured by online imaging contrast detection and rejecting in case of stopple movement. It is suitable for the aluminum cap sealing procedure of glass bottles for aseptic preparations in pharmaceutical enterprises and scientific research institutes. It is an ideal piece of equipment for realizing automatic operations.

Performance features

Capping and sealing principle: Cap hanging is carried out when the glass bottle is under continuous running. The eccentric capping knife is used for progressive sealing and capping. Therefore, the action is gentle during cap hanging. Smooth capping and sealing increase the rate of successful cap hanging and sealing. The machine adopts the PLC control system and touch screen man-machine interface operation. The machine is provided with such functions as eliminating fallen bottles on the bottle unscrambling rotary table. machine stopping in case of no bottle or no cap, bottle discharging output detection, quality imaging detection and elimination before middle capping, and no-cap detection and elimination after capping. The machine is provided with grade A laminar flow air sending protection and laminar flow enclosure for starting and stopping the machine.

Plane installation diagram



Main technical parameters

Model	VCM250	VCM300	VCM400
Production capacity	250	300	400
Hang cover rate	99.9%		
Defect eliminating rate	99.9%		
Rolling cover percent of pass	99.9%		
Overall dimensions	LxWxH 2200x1600x2450		
Machine weight	100kg	1500kg	2000kg

AMPOULE INJECTION IMPURITY DETECTING

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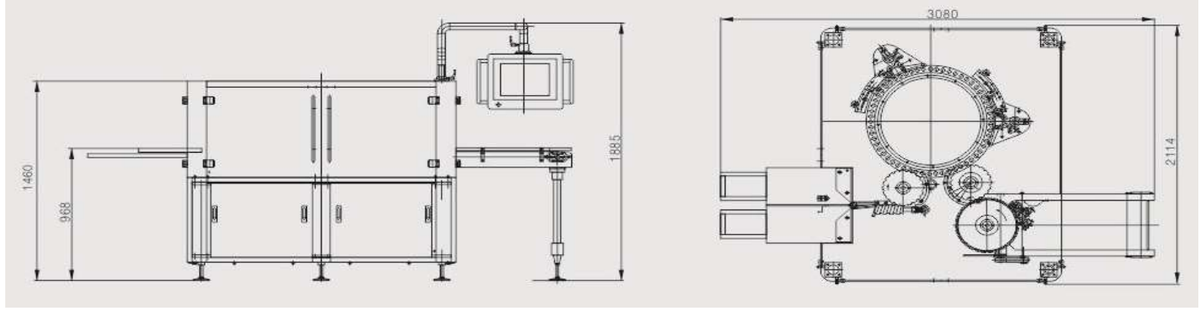
Summary

The full automatic ampoule injection impurity detecting machine is mainly used for automatic detection of visible impurities and seal faults of small volume injections, oral liquid bottles in pharmaceutical enterprises. With advanced and compact design, the machine adopts high resolution industrial cameras for multiple camera shooting detection of the liquids to be detected to fast and accurately recognize visible impurities that may exist in transparent or semi-transparent liquids, such as glass shards, scrap metal, fiber, white spots, white blocks, etc., and accurately judge if the filling volume is within the permissible range. In addition, the ampoule injection lamp inspection machine can carry out inspection of oral liquid bottle caps. The nonconforming products can be directly separated from the dialing wheel without the need to enter the detection wheel disc, so that the inspection speed and precision can be greatly enhanced, meeting the stipulations in the Chinese Pharmacopoeia.

Performance features

- The machine visual principle is adopted. The sequence images of ampoules are captured by three groups of high speed industrial cameras and sent to the industrial computer for automatic detection of visible impurities and separation of nonconforming products.
- Light reflection imaging and light transmission imaging are adopted for detection of visible impurities.
- Appearance detection optical imaging is adopted for detection of wire drawing defects and carbonization.
- The full-servo driving system is adopted to realize high speed, stable and precise running.
- The advanced industrial computer system is adopted to monitor the running status of the equipment in a real-time manner and realize remote diagnosis.
- Parts of world famous brands are adopted, including cameras, lens, light sources, servo motors, etc.
- Customized LED light sources and strobe control technology are adopted to prolong the service life of light sources.
- Provide with the bottle rotation speed online monitoring function.

Plane installation diagram



AUTOMATIC AMPOULE INJECTION IMPURITY DETECTING MACHINE

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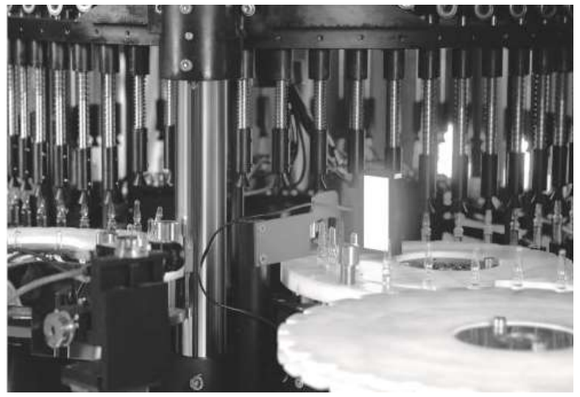
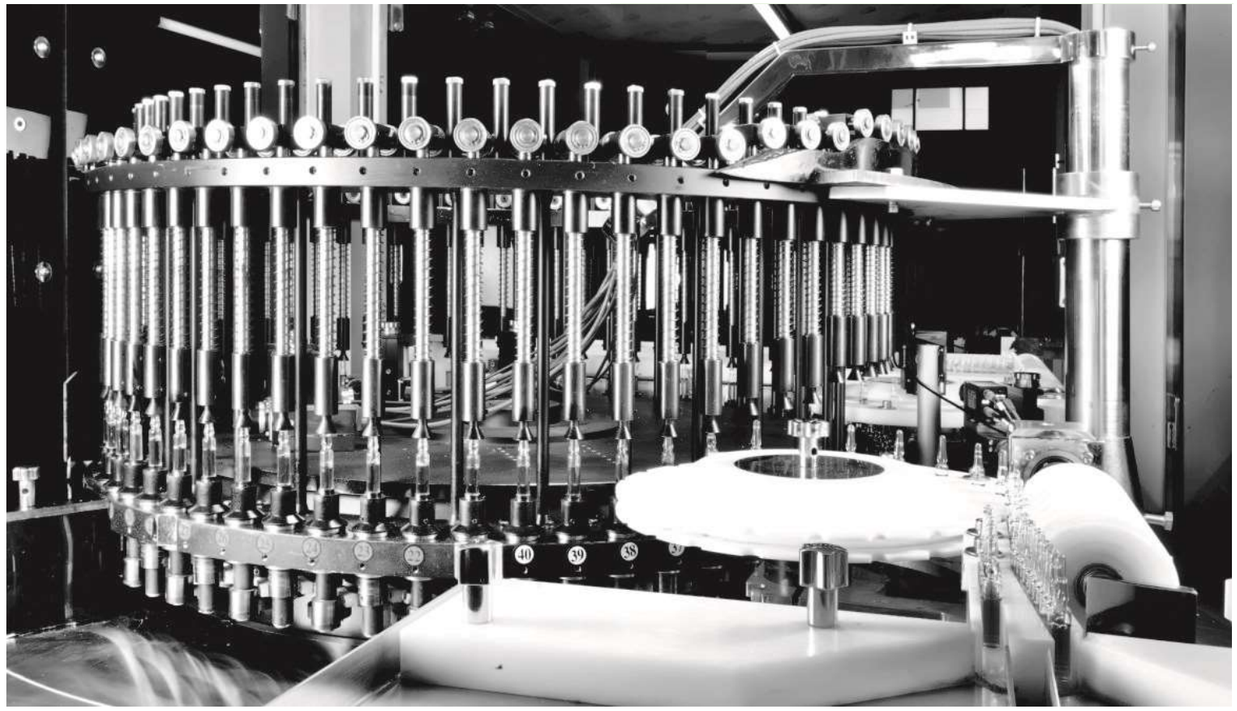
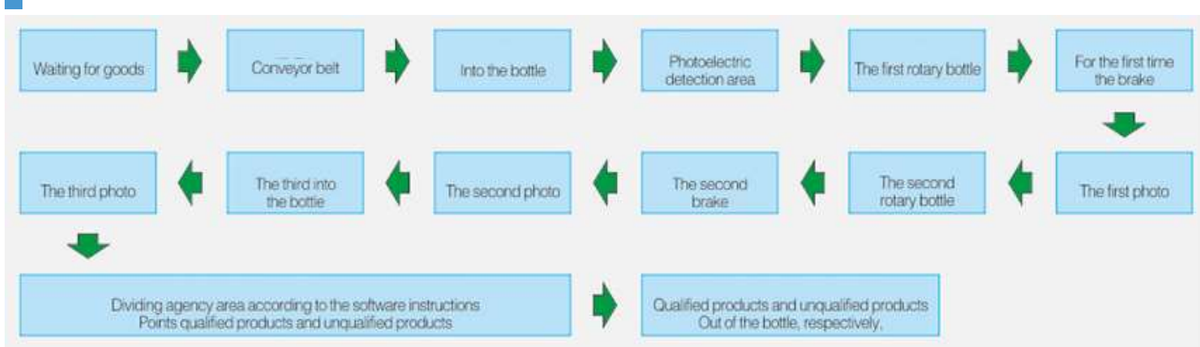




Detention range

- Inspection of glass fragments: Through the background light setting, in relatively large particles such as glass fragments, bright spots will be formed under the Hall Effect of light. Inspection is realized after comparison between various photos taken.
- Inspection of clarity: Through the side light setting, various photos of white spots and other reflective objects are taken for comparison and inspection.
- Inspection of liquid level and appearance: Through the back light setting, inspection of liquid level, empty bottle, wire drawing and other defects is carried out.
- Inspection of black heads: Through the back light, inspection of black heads at the bottle feeding pushing disc is carried out.
- Re-inspection: Through the background light setting, re-inspection of small impurities is carried out to reduce the omission ratio.

Performance features



Main technical parameters

Models	ABJ60	ABJ60AS	ABJ66	ABJ90	ABJ132
Detection of the container	Ampoule				
Pressure bottle of capita	60	60	66	90	132
Number of camera	5	7	7	11	14
Applicable specifications	1-20ml				
Running speed (bottles/min)	300-400	300-400	350-450	600	800
Rotation speed	500-4000 turns				
Single bottle detection time	<0.2sec				
Precision	≤40μ				
Power	6.5kw	6.5kw	9kw	11kw	14kw
Power supply	380V/50Hz				
Noise	-75DB(A)				
Air pressure supply	0.5-0.mPa				
Whole machine size (mm)	2740x1520x1500			3400x2540x2730	
Wight (kg)	2500			2800	

LIGHT INSPECTION MACHINE

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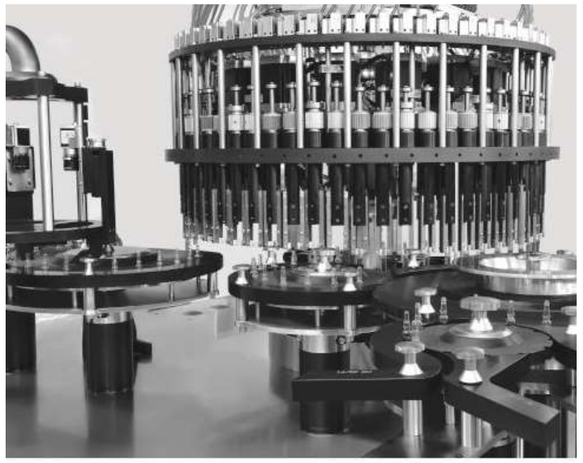
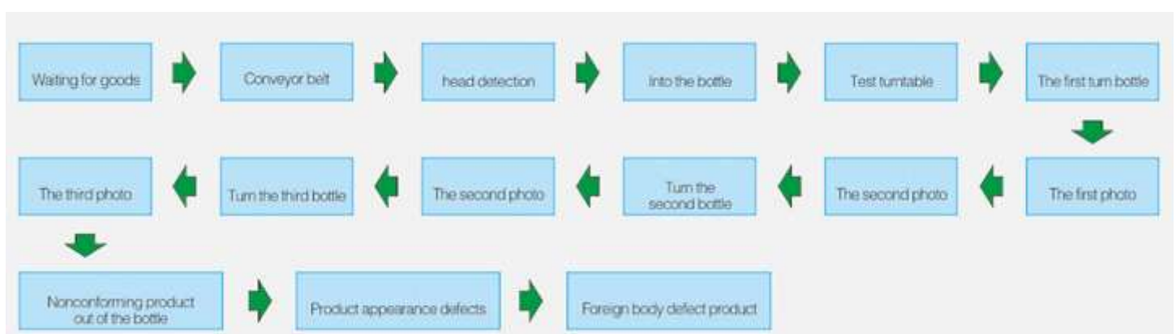


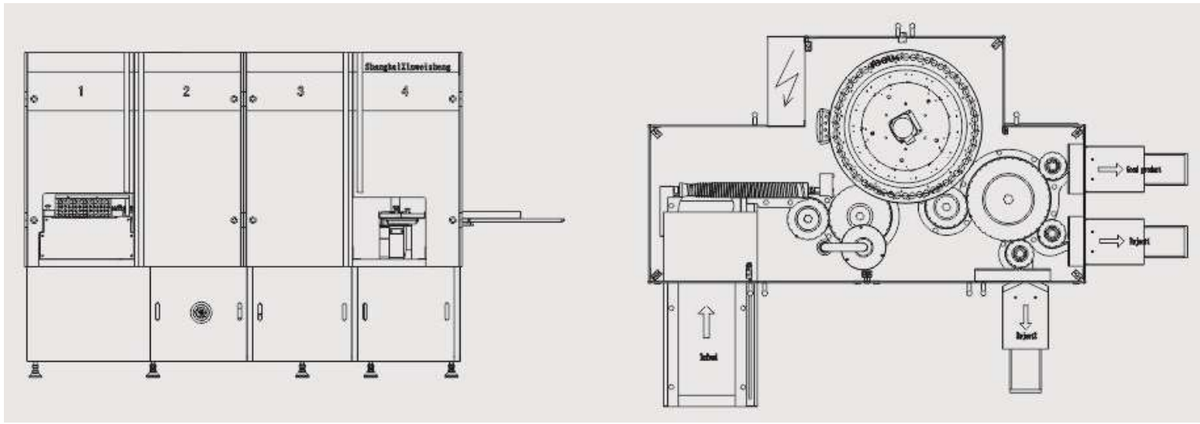
Summary

- Design and manufacturing are carried out in accordance with GMP and GAMP.
- Friendly operation interface, convenient maintenance and servicing, easy cleaning.
- Molds are simple to replace. Fast replacement can be realized without using any tool.
- The DD motor direct driving technology is adopted. With stable tracking, there is no interval error.
- The clamp claw design is adopted for clamping and positioning of products, so that there is no dead zone during product inspection. In addition, the clamping force, clamping speed, rotation speed, rotation number and rotation time can be adjusted precisely.
- Nonconforming products can be eliminated by classification. QA personnel are available to carry out data analysis and statistics of production situations.
- Standard configuration and optional configuration. Inspection items can be customized flexibly.
- The inspection data and inspection process are synchronously recorded, conforming to FDA and GAMP5.

Technical flow process



Plane installation diagram



Main technical parameters

Models	AIS-A60	AIS-A90
Detection of the container	Ampoule	
Pressure bottle of capita	60	90
Number of camera	15	
Applicable specifications	1/2/510/20ml	
Detection speed	300-400 pcs/min	300-500 pcs/min
Rotation speed	600-1200 r/min	
Precision	≥40μ	
Power	8KW	8.5KW
Power supply	380V/50Hz	
Workbench is high	900mm(±30mm)	
Overall dimensions (LxWxH))	3340x2290x2010	3340x2400x2010
Air pressure	0.45-0.7MPa	
Noise	<75db	
Weight	3500kg	400kg

VHP STERILIZER

Summary

With such features as small volume, brief design and convenient movement, the TBW VHP sterilizer is suitable for sterilization in isolation systems or clean rooms of 1m3-500m'. The automatic gas generator produces HP gas through heating, which is spread evenly on the surfaces of objects to achieve the sterilization effect. (Inspection) bacteria: bacillus stearothermophilus. The isolation system or clean room shall be mounted with connections. The sterilizer shall be connected to the space to be sterilized through the connection.

The sterilizer is placed outside the isolator or clean room. The maximum consumption of H202 shall not more than 10kg.

Performance features

Move the sterilizer to the location to be sterilized and connect it to the gas inlet. Turn off the HVAC system in the clean room or the gas feeding system in the isolation system. Set warning identification at the location to be sterilized to protect personal safety. Place the fan (or blower) at the appropriate place in the clean room to ensure even spread of H202 gas. Start the BioDecon system cycle. Relevant cycle parameters are controlled through PLC and the procedure runs automatically. Connect filtered clean air to the clean room or isolation system until VHP concentration drops to a safe level. After the cycle is finished, manually check VHP concentration to ensure personal safety.

Validation/check of cycle sterilization effect

Siemens PLC S7-300 and Siemens touch screen are adopted to automatically control temperature and humidity in the sterilization space. It is provided with the black-and-white printer (A4), which can print data reports of the cycle in real time and can also send data to the upper computer through LAN connection. Automatic weighing and control of the consumption of H202 can be realized. It is provided with the alarm function. Validation and check of the sterilization effect can be realized by using the biological indicator.

Options

- Catalyst (decomposing H202)
- Installed in the exhaust loop or air return loop
- Specially required pipe dimensions
- Integrating the isolation system
- VHP sterilizer of special dimensions and gas generation capacity
- Personal safety device
- Cycle development/validation
- Sterilization and other application services

Main technical parameters

High dimension	**800x450x175mm**
Weight	65 kg approximately
Power consumption	230/240V, 50/60Hz, 24V DC
Maximum hydrogen peroxide	15gr/min
Joint size	80mm

AUTOMATIC FEEDING AND DISCHARGING SYSTEM

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Automatic feeding and discharging system

The system is used for transfer and connection of production materials in the workshops of aseptic lyophilized powders for injection and preparations in pharmaceutical enterprises.

The system mainly includes: feeding integration system (bottle sorting conveyor bely); automatic feeding system (bottle sorting and feeding platform); Feeding and discharging AGV moving cart; feeding and discharging cart driving system; discharging integration system (discharging platform); Bottle distributing system (conveyor belt for entering and exiting the capping machine); AGV cart power supply system; automatic feeding and discharging control system.

Process flow

Feeding: The vials after filling are conveyed by the conveyor belt to the bottle unscrambling pushing disc bottle feeding port work station. When the counter detects sufficient quantity, the pushing disc and bottle unscrambling conveyor belt start until the bottle pushing track is full. At the time, the bottle unscrambling linear mechanical track rises, and the bottle pushing robot pushes the bottles on the loading platform according to the set travel. After the bottle pushing rod returns, the bottle unscrambling track falls, and the bottle feeding procedure is entered. Bottle unscrambling and pushing are carried out repeatedly until a layer of freezing-drying machine plate is full, and the last travel will increase to set a certain distance between bottles of the previous plate and those of the next plate, so that no pause occurs between plates and continuous work is realized.

Receiving materials by the cart: The AGV cart automatically runs from the feeding port to the loading platform. Its platform is stretched to connect with the loading platform, and then the mechanical arm is stretched to pull the vials to the cart platform. After the platform returns, the cart turns for 90° and moves to the preset freezing-drying machine door through the ground track.

Feeding: When the cart runs to the door of the freezing-drying machine, it faces the freezing-drying machine plate. After its platform is stretched to connect with the plate, the mechanical arm moves to push the bottles to the plate, and then the mechanical arm and cart platform return.

Discharging: According to the operations reverse to the above ones for feeding, the bottles that have been subjected to freezing, drying and stoppering are transferred to the AGV discharging cart. After they are conveyed to the discharging platform through the ground track, the cart turns for 90° and connects with the discharging platform, and the bottles are moved by the mechanical arm to the discharging platform.

Bottle distribution to the capping machine: According to the bottle consumption of the front bottle distributing conveyor belt, the push rod of the discharging platform continuously pushes towards the conveyor belt. When there are too many bottles on the front conveyor belt, the push rod will automatically stop pushing. Bottle distribution is carried out by adopting the world's most advanced parallel reverse conveyor belt, which is featured by small volume and no occurrence of bottle falling compared with the traditional rotary table bottle discharging mode.

AUTOMATIC FEEDING AND DISCHARCHING MACHINE

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Advantages of isolation system with automatic feeding and discharging

- The isolation and protection system is designed and produced according to GMP (2010 edition). With compact and reasonable structure and stable running, it meets the requirements for production processes of aseptic preparations and medicines, and its performance reaches the nationally advanced level.
- The machine is provided with various safety devices such as machine stopping when the door is opened to ensure the safety of operators and ensure that the requirements for the cleanliness class, dust particles, microbes and other indexes are met while the machine is in good condition.
- The high-efficiency filter is provided with the PAO inspection port to carry out inspection of high-efficiency completeness.

NEGATIVE PRESSURE WEIGHING HOOD

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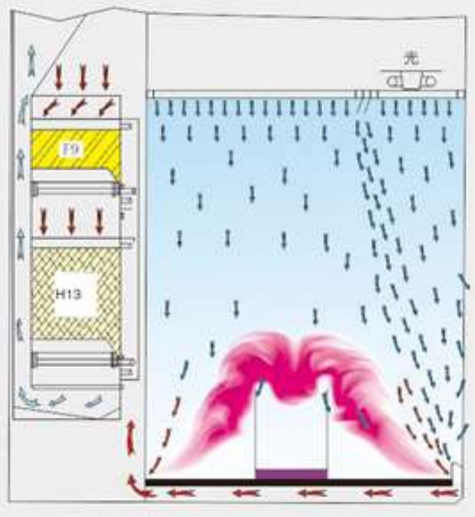
Summary

The series of negative pressure weighing hoods are suitable for weighing, sampling, filling, dispensing and other operations of products of high activity and high toxicity and active pharmaceutical ingredients (API) in pharmacy, chemical industry and other industries. It is mainly used to provide an environment of single-way air flow and negative pressure for the weighing area of materials to ensure high cleanliness in the working area. It is used for dust removal during weighing, avoiding damage caused by dust to human body, and preventing cross contamination. The operation areas of the product can reach ISO class 5 cleanliness.



Performance features

- The main structure of the equipment is made of stainless steel and the surfaces are subject to polishing treatment, so that the machine is easy to clean with beautiful appearance and bright and flat surfaces.
- The double-layer safety glass window is mounted at the left of the work table of the equipment, facilitating light collection and operation.
- The electric control part adopts the PLC and touch screen to carry out variable frequency speed adjustment of air flow.
- The unique principle of individual ventilation in three areas is adopted to achieve the effect of isolating the operation area from the external environment by using the air curtain.
- Operators are located outside the operation area, so that disturbance to the airflow is avoided and hazards to human and environment by harmful substances are prevented. The machine needs relatively low air flow, so that energy consumption is reduced and the service life of the filter is prolonged. Noise...570db.
- The air flow velocity at the operation area is low, controlled within 0.1-0.4m/s to ensure operation precision in the work room.
- The area for handling and cleaning is small, making maintenance, servicing and cleaning convenient.
- The operation area reaches ISO grade 5 cleanliness,
- Relatively few filters or filters of relatively small volume are adopted to reduce the maintenance costs.
- The flow detector of exhaust/circulation airflow is equipped with the alarm, which will send sound and light alarm if the flow speed is too fast or too low.

Airflow, conforming to EN 14175-3 and ISPE SMEPAC. The clean air curtain (area 3 in the following figure) divides area 1 from area 2, serving as a screen to ensure that there is no turbulence between area 1 and area 2, and there is no mixing. Particles cannot flow between area 1 and area 2. Thus, the isolation clean air curtain formed by the special outlet bar acts as the isolation air board to a certain extent. The airflow speed in such area (area 3) is obviously different from that in the other two areas. In this way, the effect of isolation and stabilization is realized. The final result is that air, outside gas, suspension, etc. in area 1 cannot enter area 2 through area 3, and the ambient air (including ingredients) in area 2 cannot enter the work area in area 1.

Main technical parameters

Technology project	Technical parameters
Recycle gas flow	1800 m^3/h
Exhaust flow	300 m^3/h
Studio air velocity	0.1-0.4 m^3/h
Working area deep	885mm
Wide working mesa	580mm
Working mesa high	950mm
Capacitance/power	1.2KW 380V/50Hz
Appearance is the biggest size	1235x1500x3000mm
Wight	600kg

NEGATIVE PRESSURE WIGHING HOOD

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Do you want to avoid

- Pieces of biological and dust particle pollution of your products
- Pieces of cross contamination with other products
- The effect of mixer for the operator and environment
- Pieces of raw material is invalid transfer caused by the pause time

Our solution

PSI Pharmaceutical safety module, based on high quality, advanced level of the system.

Features

- In pieces short delivery time
- Mixer easy to operate
- Pieces of high grade stainless steel and glass structure
- Mixer integrated hydrogen peroxide purification
- Sterile or sterile mixer/toxic action
- Pieces of GMP clean for A grade, IS05
- Pieces according to the GAMP preparation and record
- Mixer automatic leak test •Mixer integration sterile test pump (optional)
- Pieces of RTP and waste liquid port (optional)
- Pieces of positive pressure or negative pressure operation

High flexibility of modular isolators and airlock for your process

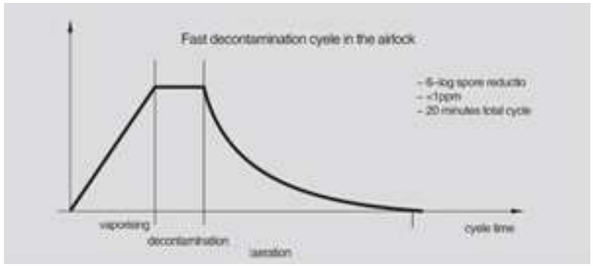
- Also available as 2-glove version.
- Later extension with airlock possible

Safe and rapid transfer air lock (SARA-M)

- Cycle is short, less than 20 minutes, less than 1 ppmh2o2
- Six exponential mixer to reduce
- The mixer is independent of the isolator
- Isolator sliding door, completely into the workspace
- Fully integrated, fully automatic
- The authority of the test pieces support validation team
- Pieces of H202 and material completely accord with the requirement of level of isolator

Air flow and filter technology

Designed for isolation of highly active particles in the air, such as live vaccine cells of toxins, viruses and bacteria Filters can be a person alone, without the need of safety protective clothing under rapid change easily, The entire process of replacement filter, isolator and keep a safe sealing filter box, security burning type filter , easy to handle.



Integrated decontamination system with H2=2

- In pieces air-tight indoor rapid purification
- Six exponential mixer to reduce • Mixer is less than 1 PPM
- In pieces the entire cycle is only 20 minutes
- Pieces of evaporation - purification -ventilation – cycle

FIBO: innovative safe-change filter box

Designed for isolation of highly active particles in the air, such as live vaccine cells of toxins, viruses and bacteria Filters can be a person alone, without the need of safety protective clothing under rapid change easily, The entire process of replacement filter, isolator and keep a safe sealing filter box, security burning type filter, easy to handle.

A wide range of services to round off the package

All provided by SKAN isolator, has a complete comprehensive packaging files, to achieve the requirement of the authority, Provide barrels of final approval of customer support, including installation, commissioning, 10/00, cycle development and P0, because This, KAN has its own laboratory and H202 technicians and isolator, can support all validation activities.