Because of persistence,we are superexcellent!

Enterprise introduction

TRUKING TECHNOLGY LIMITED is a Chinese company, founded in 2002, It is a high-tech enterprise of electromechanical integration, specializing in research & development, manufacturing and sales for pharmaceutical machinery. TRUKING is one of the Chinese Excellent Private Technology Enterprises. It is the first one to be the "Chinese famous trade mark" in Pharmaceutical Machinery Industry. Truking is located in the Ningxiang Economic Development Zone, Manufacturing base covers an area of 300,000 m2, with more than 2000 staffs, and have USD 120million total assets.

As the biggest manufacturer of pharmaceutical machinery in Asia, TRUKING's leading products are: vial compact line, freeze dryer and auto loading & unloading system, overall solution for lyophilized preparation, ampoule compact line, overall solution for ampoule injection preparation, Auto-inspection machine for ampoule and vial, vial powder compact line, rubber stopper washing machine, 4 in 1 plastic ampoule compact line, oral liquid bottle compact line, Non-PVC infusion soft bag compact line, infusion glass bottle compact line,and injection preparation turnkey project etc. The technology level is leading in the world. In addition, part of the products have reached the international leading level and been listed as the National Key New Products Planning projects in China.

Based on technology development and innovation, our principle is "to be unique, or to be the first". At present, Poster-doctors research & development center and National enterprise technology Research and development center have been established. TRUKING has joined and drafted 14 national standards for pharmaceutical equipments, and applied for more than 1523 patents, including 371 invention patents and 22 international patents. We are the company who owns the most patents in pharmaceutical machinery industry.

"To be respected person, to make respected products, to run respected enterprise." With continuous technical innovation, strict quality management and excellent after-sales service, TRUKING has earned trust and faith from clients all over the world. The products of TRUKING can be found all over the country, including Hong Kong and Taiwan, and have been exported to such as Japan , Australia, Greece, Cyprus ,Turkey, Ukraine, Russia, Uzbekistan, Kazakhstan ,Mexico, Peru , Argentina, South Korea, India, Indonesia, Bangladesh, Pakistan, Vietnam, Thailand, Iran, Iraq, Egypt etc. Some of them have passed the evaluation and verification from the strictest medicine production quality guarantee systems such as US FDA, EU cGMP and WHO.

TRUKING people has written a new page for the Chinese Pharmaceutical Machinery Industry with our persistence, and is leading the enterprise to a promising and steady developing road with our strict style.

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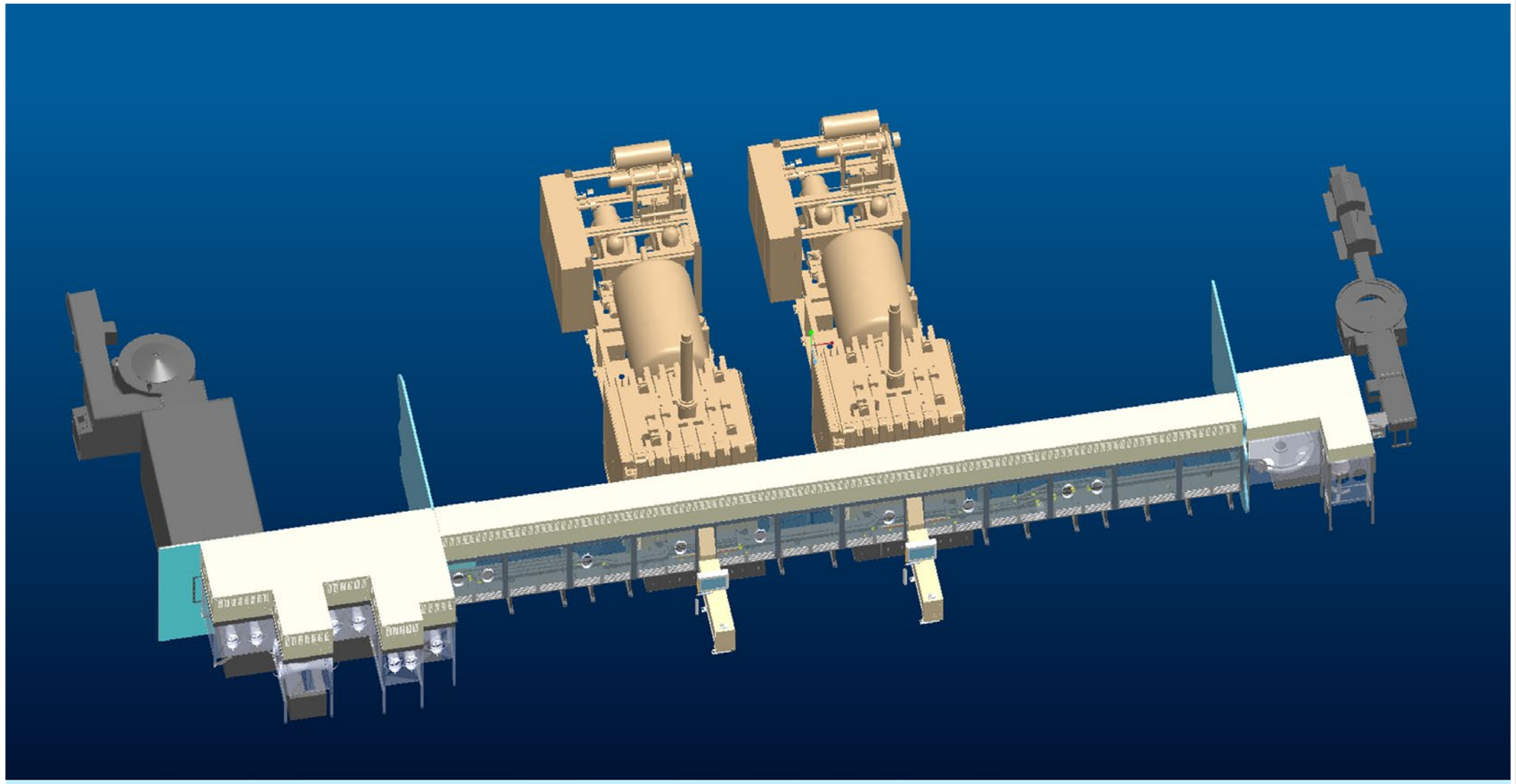
Solution For Sterile Products
Lyophilization Production



Proposals

- KLX, KLXL series vial filling compact line
- LYOTK series Freeze-dryer
- LALUTK series auto loading & unloading system
- ZG series capping machine
- SWS series stopper (cap) washing machine
- Auto Preparation tank system

Main application

It is mainly used for production of sterile lyophilized products, it can complete the whole production process and automatic control from raw material to the finish products. The process can be consist of: vial loading, washing, sterilizing, solution preparation, sterile filtration, filling, rubber stopper washing and sterilizing, stoppering, auto loading, freeze drying, auto unloading, cap washing and sterilizing, cap loading, capping, auto-inspection, after-packing and other procedures pack etc.

Main advantage

- Design according to the production process requirement of customer, with reasonable and effective technological model.
- Integrated design, high efficiency operation, and information management .
- Improved product sterility assurance level, reduce quality control risk.
- Reasonable construction space, economic investment and running cost.
- Provide overall solution according to new version GMP, US FDA, EU cGMP, WHO etc.

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KLXL Series Vial Compact Line
for Cleaning, Sterilizing, Drying, Filling & Stoppering,

Main technical parameter

Type	Suitable sizes	Output	Layont Shape	Power	Net weight	Overall dimensions
KLXL2～20-D	2-30ml(vial)	6000-30000 pcs/h	Linear Shape	132.5KW	11000kg	12000×2800×2400mm
KLXL2～20-C		6000-27000 pcs/h	L Shape	112KW	8700kg	10500×4600×2340mm
KLXL2～20-B		6000-18000 pcs/h	L Shape	90KW	7600kg	9500×4400×2340mm
KLXL2～20-A		6000-12000 pcs/h	L Shape	73.5KW	7100kg	8900×4400×2340mm

Note: In above table, output is reverse to specification. The final data are subject to the technical specification.

Main application

This line is composed of KQCL Series vertical washing machine, KSZ Series sterilizing & drying tunnel, KGS or KGSL Series filling & stoppering machine, ZG Series capping machine. Each machine can function independently, or be connected as a compact line. It could finish processing procedures such as: water sprinkling, ultrasonic washing, clamping and overturning bottles by manipulator, water flushing(interior and exterior), air flushing(interior and exterior), preheating, drying & sterilizing, depyrogenation, cooling, (pre nitrogen), filling, (post nitrogen), stoppers orienting, stoppering, caps orienting, capping and so on. it is mainly used for production of ampoule and vial in pharmaceutical factories.

Characteristics

Vertical ultrasonic washing machine adopts ultrasonic washing and alternant jetting water and airflow. It is the most popular and with highest clarity washing equipment in the world. In whole washing process, three washing mediums adopt independent needles, each group of needle only flush one washing medium which avoids cross contamination and meets new version GMP requirement.

Sterilizing & drying tunnel adopts the principle of laminar flow and hot air sterilizing technology, which can make containers finish aseptic production process from preheating, drying, sterilizing, to cooling. It is the most popular sterilizing & drying equipment and has best sterilizing effect. It has uniform heat distribution and good depyrogenation effect.

Vial filling & stoppering machine adopts synchronous belt V block to locate, to-and-fro follow filling system to fill, rotary getting stopper and linear stoppering, is the most popular equipment with highest qualified rate on orienting, filling and stoppering in the world.

Capping machine adopts single roller follow capping method, and there are fine-tuning on top, bottom and circle direction. It is more applicable with China domestic packaging material with high capping qualified rate and good adaptability.

It adopts advanced PLC control HMI operation which can not only control the whole line but also control single machine. It guarantees normal operation of the whole compact line, with high automation less, few operator and low labor intensity.

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KQCL Series Vertical Ultrasonic Washing Machine

Main application

This machine is mainly used for washing of vials in pharmaceutical factories, it also can be used for ampoules, oral liquid bottles etc.

Characteristics

This machine adopts vertical gyration structure. It adopts the principle of ultrasonic cleaning and washing by alternant jetting three times of water and three times of airflow to clean containers one by one. Each medium adopts independent needles. Needles are inserted into bottle to flush, no cross contamination, and no water and air loss, which saves energy, and has good washing effect. It can observe whole washing process, is convenient for operation and maintenance.

Main technical parameter

Type	Suitable sizes	Output	Water onsumption	Air onsumption	Power	Net eight	Overall imensions
KQCL28/5	1-20ml (vial)	14000-36000 pcs/h	0.2-0.3MPa 1.2m3/h	0.6MPa 60m³/h	25KW	3000kg	2530×2850×1640mm
KQCL28/4	1-25ml (vial)	10000-29000 pcs/h	0.2-0.3MPa 1.0m3/h	0.6MPa 50m³/h	25KW	2900kg	2530×2850×1640mm
KQCL28/3	1-30ml (vial)	8000-22000 pcs/h	0.2-0.3MPa 0.9m3/h	0.6MPa 45m³/h	25KW	2800kg	2530×2850×1640mm
KQCL20/5	1-15ml (vial)	1000-29000 pcs/h	0.2-0.3MPa 0.9m3/h	0.6MPa 45m³/h	15.7KW	2400kg	2400×2200×1620mm
KQCL20/4	1-25ml (vial)	8000-23000 pcs/h	0.2-0.3MPa 0.8m3/h	0.6MPa 40m³/h	15.7KW	2400kg	2400×2200×1620mm
KQCL20/3	1-30ml (vial)	6000-17000 pcs/h	0.2-0.3MPa 0.6m3/h	0.6MPa 35m³/h	15.7KW	2200kg	2400×2200×1620mm
KQCL20/2	1-50ml (vial)	6000-11000 pcs/h	0.2-0.3MPa 0.5m3/h	0.6MPa 30m³/h	15.7KW	1900kg	2400×2200×1620mm
KQCL12/2	1-100ml (vial)	2400-7000 pcs/h	0.2-0.3MPa 0.5m3/h	0.6MPa 30m³/h	15.7KW	1800kg	2440×1900×1620mm

Note: In above table, output is reverse to specification. The final data are subject to the technical specification.

KSZ Series Sterilizing & Drying Tunnel

Main application

This machine is suitable for the Sterilizing and drying of vials and other medical class bottles such as ampoules and oral liquid bottles in pharmaceutical factories.

Characteristics

The tunnel is divided into three zones: preheating zoom, sterilizing and cooling zone. It adopts hot air laminar flow principle and high temperature sterilization process to realize containers' dry sterilization and depyrogenation, adopts negative sealing and air flow and other core patent technologies with high temperature precision good heat distribution and eliminating pyrogen effect .

Main technical parameter

Type	Suitable sizes	Output	Effective width of conveyor belt	Power	Net weight	Overall dimensions
KSZ920/140A	2-100ml (vial)	4000-74000 pcs/h	900mm	180.67KW	10000kg	8566×2050×2400mm
KSZ920/120B		3180-57000 pcs/h	900mm	144.5KW	8500kg	6880×2050×2400mm
KSZ920/100B		2580-47000 pcs/h	900mm	123.4KW	6800kg	5730×2050×2400mm
KSZ620/75B		1200-31800 pcs/h	600mm	89.2KW	6500kg	4940×1700×2410mm
KSZ620/60B		900-24000 pcs/h	600mm	72.45KW	4200kg	4310×1700×2410mm
KSZ620/43B		600-16000 pcs/h	600mm	54.3KW	3500kg	3680×1700×2410mm
KSZ620/43E		360-12000 pcs/h	600mm	47.55KW	3200kg	2760×1565×2450mm
KSZ420/20		300-8200 pcs/h	400mm	24.88KW	2800kg	2400×1467×2350mm
KSZ620/10C		1200-24000 pcs/h	600mm	73.4KW	5000kg	5075×1700×2410mm
KSZ620/75C		1800-24000 pcs/h	600mm	91KW	5000kg	5079×1700×2410mm

Note: In above table, output is reverse -to specification.The final data are subject to the technical specification.

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KGS12 \ KGS6 Series Linear Filling & Stoppering Machine

Main application

It is mainly used for filling and Stoppering of vial liquid and lyophilized products in pharmaceutical factories.

Characteristics

This machine adopts single row synchronous belt for conveying, and servo motor control for following movement: filling needle up and down & fro and back, integral type sucker Stoppering and outfeed. It can automatically finish procedures of vial orienting, conveying, (pre-nitrogen), filling, (post-nitrogen), stopper orientation, Stoppering etc. For the Stoppering, it can do full Stoppering and half Stoppering.

Based on all kinds of advanced technology in company, together with the filling principle, we designed and developed this kind of high speed sterile filling machine with all servo system. There are options for ORABS, IPC weighing system, CIP&SIP for filling system. The high configuration of this method can fully meet EU cGMP and FDA standard.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Stoppering heads	Power	Net weight	Overall dimensions
KGS12	2-30ml (vial)	6000-24000pcs/h	12	24	17 kw	2000kg	4670×2150×1850mm
KGS12/10		6000-20000pcs/h	10		16 kw		
KGS12/8		6000-16000pcs/h	8		15 kw		
KGS12/6	2-100ml (vial)	3000-12000pcs/h	6	12/24	14 kw		
KGS6	2-30ml (vial)	3000-12000pcs/h	6		14 kw	1500kg	3950×1950×1850mm
KGS6/4		3000-7200pcs/h	4		13 kw		
KGS6/2	2-100ml (vial)	1000-3600pcs/h	2		12 kw		

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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KGSL12 \ KGSL6 Series L·shape Filling & Stoppering Machine

Main application

It is mainly used for vials filling and stoppering in pharmaceutical factories.

Characteristics

This machine adopts L shape wall in structure, single row synchronous belt for conveying, and servo motor control for following movement: starwheel infeed, filling needle up and down and fro and back, integral type sucker stoppering and outfeed. It can finish the whole process from vial orientation, infeed, pre nitrogen charging, filling, post nitrogen charging, stopper orientation to stoppering. For the stoppering, it can do full stoppering and half stoppering.

Based on all kinds of our company advanced technology, together with the filling principle, we design and developed this kind of high speed sterile filling machine with all servo system. There are options for ORABS, IPC weighing system, CIP & SIP for filling system. The high configuration of this model can fully meet cGMP and US FDA standard.

It adopts L shape wall-in structure, is single side operation. It can realize function division effectively, reduce cross contamination, improve product sterile assurance level for production. It is the developing trend of sterile product, and meets international advance level.

Main technical parameter

Type	Suitable sizes	Output	Filling heads	Stoppering heads	Power	Net weight	Overall dimensions
KGSL12	2-30ml (vial)	6000-24000pcs/h	12	24	17KW	2000kg	4500×2500×1850mm
KGSL12/10	2-30ml (vial)	6000-20000pcs/h	10	24	16KW	2000kg	4500×2500×1850mm
KGSL12/8	2-30ml (vial)	6000-16000pcs/h	8	24	15KW	2000kg	4500×2500×1850mm
KGSL12/6	2-100ml (vial)	3000-12000pcs/h	6	12/24	14KW	2000kg	4500×2500×1850mm
KGSL6	2-30ml (vial)	3000-12000pcs/h	6	12/24	14KW	1300kg	3800×2500×1850mm
KGSL6/4	2-30ml (vial)	3000-7200pcs/h	4	12/24	13KW	1300kg	3800×2500×1850mm
KGSL6/2	2-100ml (vial)	1000-3600pcs/h	2	12/24	12KW	1300kg	3800×2500×1850mm

Note1:Plexiglass support stand is not included for standard equipment.
Note2: In above table, output is reverse to specification.The final data are subject to the technical specification.

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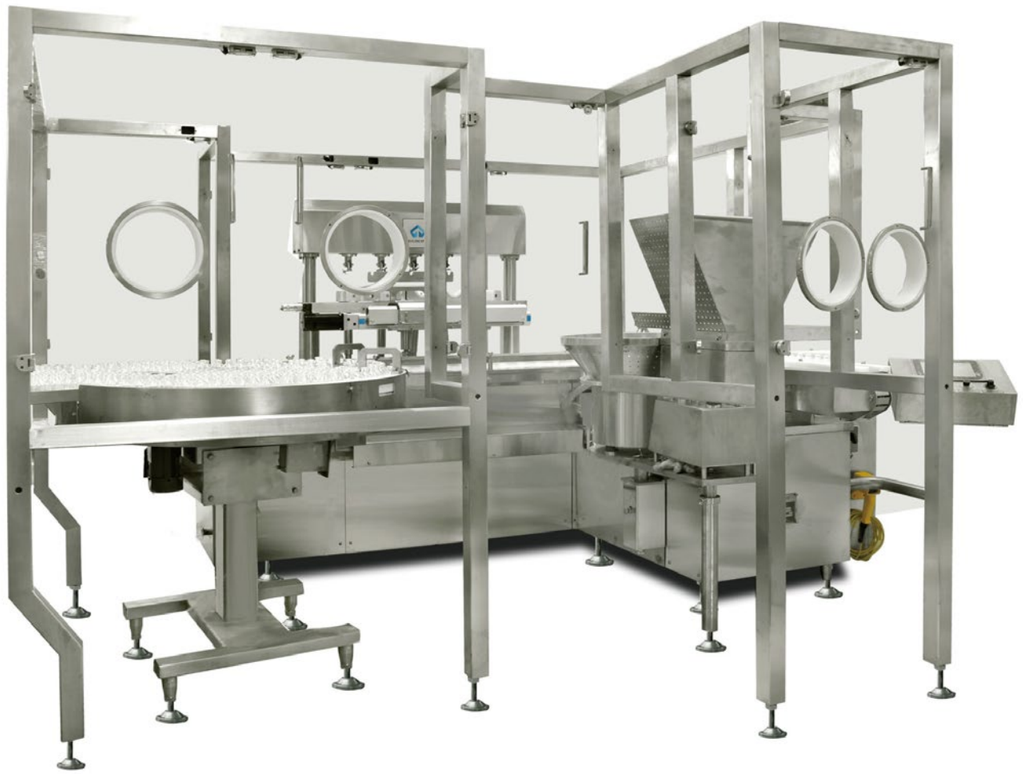
KGS10 Series Linear Filling & Stoppering Machine



Main application

It is mainly used for filling and stoppering of vial liquid and lyophilized products in pharmaceutical factories.

Characteristics

This machine adopts methods of conveying vials through single line synchronous belt, linear tracking filling and integral type sucker stoppering. It can automatically finish procedures such as vial orienting, vial conveying, (pre-nitrogen), filling, (post-nitrogen), stopper orienting, stoppering etc. It can be equipped with glass pump, metal pump, ceramic pump or peristaltic pump for filling as customer's requests.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Stoppering heads	Power	Net weight	Overall dimensions
KGS10	2-30ml(vial)	6000-18000pcs/h	10	24	13 kw	1300kg	3360×2290×1850mm
KGS10/8		4800-13200pcs/h	8	24	12 kw		
KGS10/5	2-100ml(vial)	3000-9000pcs/h	5	12	11 kw		
KGS10/4		2400-6600pcs/h	4	12	10 kw		
KGS10/2		1200-3300pcs/h	2	12	9 kw		

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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KGS16 \ KGSY16 Series Linear Filling & Stoppering Machine

Main application

It is mainly used for filling and stoppering for vials in pharmaceutical factories.

Characteristics

This machine is linear shape, it adopts double line synchronous belt, linear tracking for filling and rotary stoppering method, automatically finish the process of vial orientation, infeed, filling, stopper orientation, stoppering etc. This machine runs stably with high speed, it is suitable for large batch production. KGS16 has stoppering station at front and back part, KGSY16 has single stoppering at back part.

Main technical parameter

Type	Suitable sizes	Output	Filling heads	Stoppering heads	Power	Net weight	Overall dimensions
KGS16/12	2-30ml (vial)	6000-21000 pcs/h	12	48	14KW	1800kg	4250×3500×1850mm
KGS16	2-30ml (vial)	6000-27000 pcs/h	16	48	16KW	1800kg	4250×3500×1850mm
KGS16/18	2-30ml (vial)	6000-30000 pcs/h	18	48	17KW	1800kg	4250×3500×1850mm
KGS16/20	2-30ml (vial)	6000-33000 pcs/h	20	48	18KW	1800kg	4250×3500×1850mm
KGSY16	2-30ml (vial)	6000-27000 pcs/h	16	48	18KW	1800kg	5000×1700×1850mm
KGSY16/18	2-30ml (vial)	6000-30000 pcs/h	18	48	19KW	1800kg	5000×1700×1850mm
KGSY16/20	2-30ml (vial)	6000-33000 pcs/h	20	48	20KW	1800kg	5000×1700×1850mm

Note1:Plexiglass support stand is not included for standard equipment.
Note2: In above table, output is reverse to specification.The final data are subject to the technical specification.

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ZG Series Capping Machine

Main application

This machine is mainly used for capping of vials in pharmaceutical factories.

Characteristics

This machine adopt single roller following capping structure, it can fishsh bottle conveying ,cap infeeding, capping etc. automatically. According to different room clean levels for machines, you can choose the following model with different function configuration:
ZG series with aluminum particle collecting device, and automatic rejection after capping.
ZGN serise capping area is negative pressure, also equip with self air recycling system and automatic rejection after capping.
ZGS series camera detecting system for rejection before capping, it detects the sealing of stooper and vial mouth. The bad vials will be rejected automatically.

Main technical parameter

Type	Suitable sizes		Output	Capping heads	Bottle infeeding	Power（aluminum particle collection device)	Net weight	Overall dimensions
ZG6	2-50ml	(vial)	600-6000 pcs/h	6	Turn table	3.7KW	900kg	2100×1520×2000mm
ZG15	2-100ml		9000-24000 pcs/h	15	Turn table	5.3KW	1200kg	2530×2300×2000mm
ZG18	2-50ml		9000-24000pcs/h	18	Belt	3.5KW	1200kg	2700×2200×2000mm
ZGS18	2-50ml		9000-24000 pcs/h	18	Turn table	6.8KW	1200kg	2530×2300×2000mm
ZGN18	2-50ml		9000-24000 pcs/h	18	Belt	3.5KW	1200kg	3420×2077×2000mm

Note1:Plexiglass support stand is not included for standard equipment.
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LYOTK Series Freeze-dryer

Main technical parameter

Model	Main application	Shelf area	Max ice condensate rate	Lyo batch Qty.
LYOTK	Middle & Large Scale lyophilization production	1㎡-40㎡	20Kg-800Kg	22mm body dia.vial 2000-90000pcs 16mm body dia.vial 4500-178000pcs
LYOTK LAB	R & D lyophilization	0.2㎡-1㎡	4Kg-20Kg	22mm body dia.vial 400-2000pcs 16mm body dia.vial 800-4500pcs

Note: In above table, output is reverse to specification. That means smaller specification, larger output.The final data are subject to the technical specification.

Main application

The Freeze dryer is mainly used for the lyophilization of the foproducts, such as: biological products, chemical products, vial freeze drying, API freeze drying, natural medicine, heat sensitivity products, oral liquid lyophilized tablets etc. in the pharma industry, food and health care field.

Characteristics

LYOTK series and LYOTK LAB series has been developed to realize effective and economic freeze drying process. Maximum product security is considered during designing stage, it is suitable for all kinds of high value products. And it ensures operator and environmental safety. It supplies longer using life to customer through its variety and stability of design.

Freeze dryer combines the technology of freezing, drying, and fluid dynamics together. It is made of chamber, chamber door, ice condenser, shelf, refrigerating system, vacuume system, hydraulic system, recycling system and control system. It can add features according to customer's requirement, such as CIP/SIP, CIP cleaning station. The whole freeze drying cycle can be combined in below functional steps: loading, freezing, evacuation, drying, pressure rise test, pre aeration, stoppering, aeration, storage, unloading etc. Under the auto loading model, the freeze drying cycle will be as above.

tFreeze dryer design is based on many technologies, it adopts high quality materials and world renowned components which are widely accepted in the pharmaceutical industry, and it adopts many proven technologies in manufacturing, which can guarantee the machine is in full compliance with requirement of new version GMP or EU cGMP, US FDA, WHO,PIC/S.

System Composition

CHAMBER

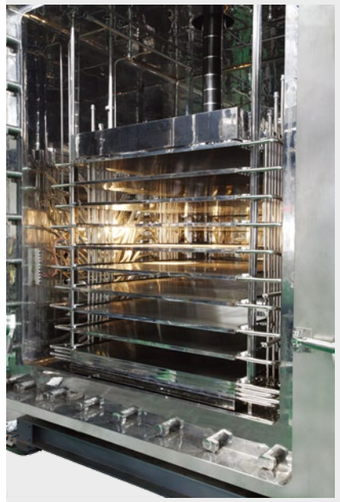
- The chamber is square shape. All the surface and holes are processed at one time through processing equipments. It meets current advanced international level,
- The internal corners of rectangular chambers have a radius >20mm.
- The bottom of the chamber is sloped towards drain to ensure proper drainage,
- All internal materials adopt AISI 316L stainless steel,
- The internal surfaces of the chamber are mechanically polished to mirror polish <0.4mRa.

CONDENSER

- According to customer's requirement, the ice condenser can be designed to be vertical type or horizontal type, customization is possible through placing it on the side/back/bottom of the chamber,
- Adopt mushroom valve design for best vapor flow and ice distribution,
- Condenser coil surface area design based on 1:1 comparing to the shelf area.

CHAMBER DOOR

- Main door are assembled with the chamber & adapts D-form gasket used for sealing,
- Special hinge design ensure the easy opening of main door,
- Automatic main door locking system,
- Servo motor driven sliding slot door to insure the Minimum open during loading and it can working together with the automatic loading and unloading system.



PRODUCT SHELVES

- The shelves are made of AISI 316L stainless steel,
- Adopts special "internal welding" technology to ensure good flatness and sealing of the shelf,
- Adopt flexible 316L braided hose pipes,
- Surface polishing finish within the range of 0.4 - 0.6m Ra, with passivating treatment,
- Helium leak test for every shelf and shelf stack to ensure no leakage.

System Composition

REFRIGERATION SYSTEM

- The refrigeration system is designed and assembled precisely to ensure the performance specification,
- Each compressor adopt R507 or R404A HFC refrigerants individual circuits,
- All refrigeration circuits are configured to be able to serve either condenser or shelf cooling,
- All the key components used are renowned brand worldwide,
- It can provide good low temperature performance and has minimum risk of leakage,
- Screw type compressor can be supplied as an option instead of piston compressor,
- Electronic expansion valve can be supplied as an option instead of thermo expansion valve.

VACUUM SYSTEM

- The vacuum system for the freeze drying process adopts Globally accepted brand of vacuum pump(s) and components,
- Booster pump can be supplied if necessary,
- Dry pump can be supplied as an option instead of normal two stage, oil sealed, rotary vane vacuum pump,
- The MKS Capacitance type vacuum gauge can be supplied as an option instead of normal Pirani gauge (for chamber vacuum only),
- A proportionally modulated gas admission valve can be supplied as an option instead of normal on/off control.

HYDRAULIC SYSTEM

- Hydraulic units adopts original European brand,
- Provides AISI 316L bellows to cover hydraulic stoppering cylinder and with automatic integrity test function,
- Automatic shelf positioning hydraulic system can be supplied as an option for auto loading and unloading machine,
- Automatic “shelf positioning “system will be supplied to prevent the shelf drifting during the cycle.

CIRCULATION SYSTEM

- Circulation system’s key components adopt European brand,
- 5 CST silicone oil is adopted as heat transfer media,
- Adopt all welding design to minimize risk of the silicone oil leakage.

System Composition

CIP/SIP SYSTEM

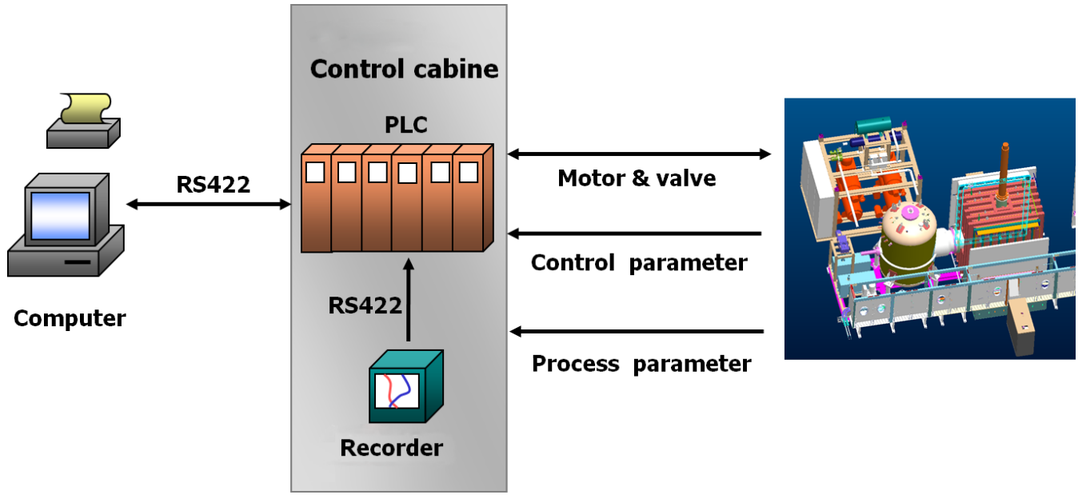
- A series of fixed and rotary spray nozzles mounted on distributing manifolds positioned within the chamber and condenser,
- The nozzles and manifolds are fabricated from AISI 316L /316 stainless steel,
- All processing valves are sterile diaphragm valve,
- Two water media (PW&WFI) inlet can be provided as option,
- Pressure vessels can bear sterilization of 128℃(1.6barg),
- Perfect safety interlock can ensure the safety of the sterilization cycle,
- Sterile filter can be sterilized together with the chamber and condenser during SIP, also compatible with In-situ integrity test of the filter.

CIP CLEANING STATION

- Auto control the local equipment, to implement the CIP, SIP,
- Implement remote composite control on Freeze-dryer,
- Manual control buffer tank for water inlet and drainage,
- A CIP station system can be supplied as an option to reduce the utility duty, also can be designed to serve several freeze dryers together.

CONTROL & DOCUMENTATION SYSTEM

- SCADA control system based on the PLC+PC interface configuration,
- Adopt world renowned PLC brand and others control components,
- Fully comply with the FDA 21CFR PARTS 11 requirement,
- Can realizes all cycle control function of LYOTK series freeze-dryer,
- Chart recorder can be supplied for recording process data & also storage compatibily in SCADA system database,
- E-signature and batch report function can be supplied,
- Recipe edit and monitoring function,
- GAMP5 documentation system is used as option according to requirement, to ensure the product quality traceability.



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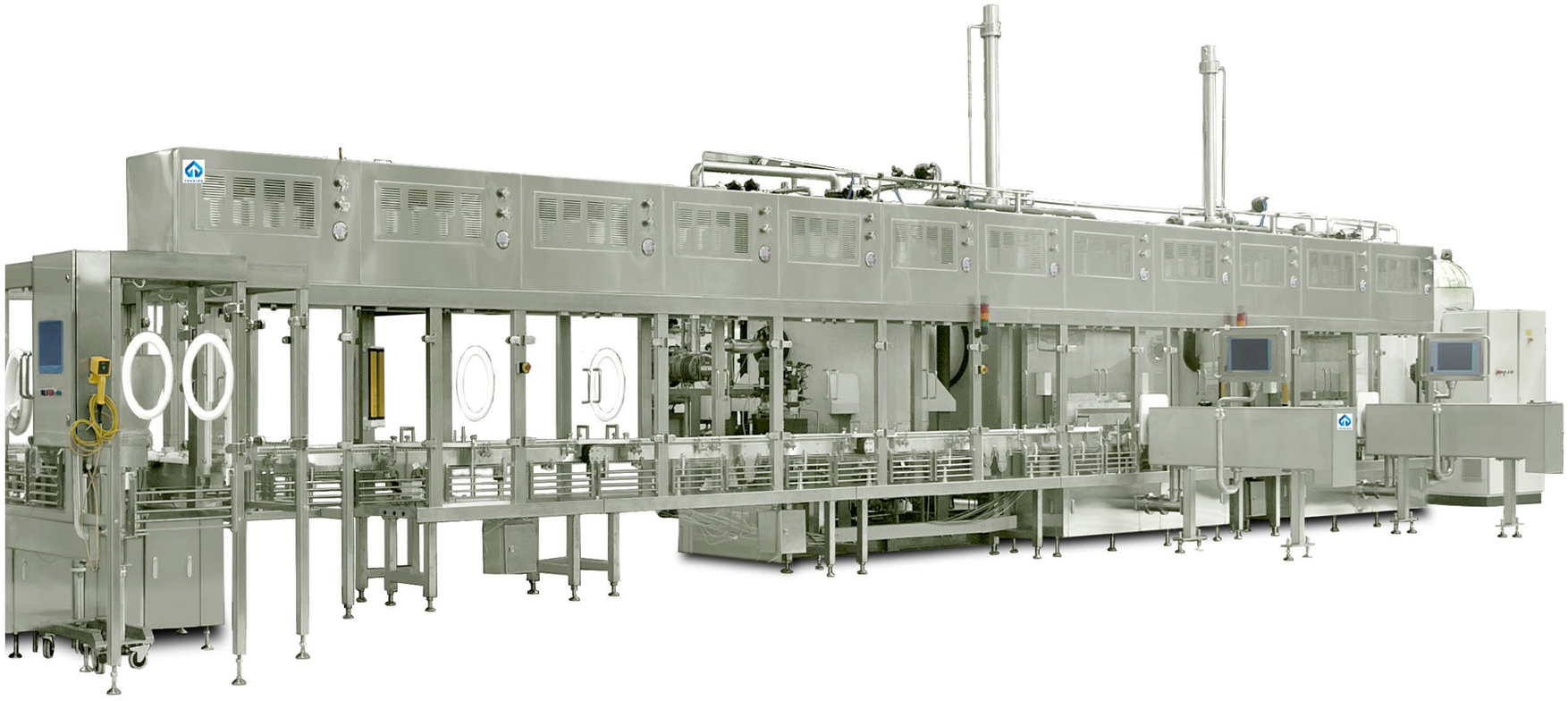
LALUTK Auto Loading & Unloading System



Main application

It is mainly used for transfer of the half stopperred vials from filling machine to Freeze-dryer, sterile transferring from Freeze-dryer to capping machine, with advanced integrated infeed and outfeed structure. It can realize the product automatic transferring without operator.

Classification

Two types of Auto loading& Unloading systems from Truking: ROW BY ROW (RBR) 、single row and double rows Automatic Guided Vehicle(AGV)

Characteristics

- It can improve sterile assurance level, reduce quality control risk;
- Reduce operators in sterile room, to reduce the microbe load in the room;
- Adopt integrated control system, to realize the interlocking between loading and unloading system, free=ze dryer, filling machine and capping machine;
- It has complete electric safety circuit, reliable detecting data analysis and alarm function;
- User friendly HMI, flexible control model, editable production recipe, and trace operation record.

Main technical parameter

Model & Capacity		LALUTK-06	LALUTK-09	LALUTK-12	LALUTK-15
Vial size (Body Dia.× height)	2ml(φ16×35)	12000 pcs/h	18000 pcs/h	24000 pcs/h	30000 pcs/h
	10ml(φ22×49.7)	11000 pcs/h	15000 pcs/h	21000 pcs/h	25300 pcs/h
	20ml(φ27×58)	7000 pcs/h	10000 pcs/h	12000 pcs/h	20000 pcs/h
	30ml(φ32×70)	5500 pcs/h	7200 pcs/h	9000 pcs/h	16500 pcs/h
	50ml(φ42.5×73)	/	/	5000 pcs/h	/
	100ml(φ51.6×94.5)	/	/	3000 pcs/h	/

Note: In above table, output is reverse to specification.The final data are subject to the technical specification.

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INFEED JOINT SYSTEM

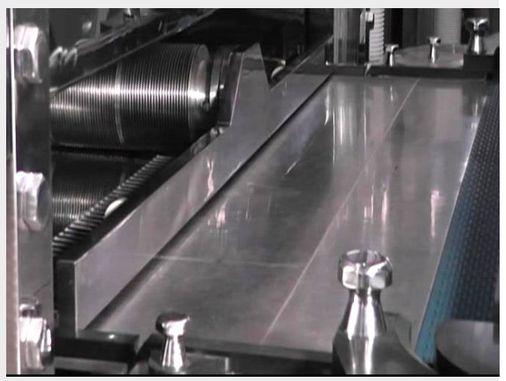
- Equip infeed transit integrated conveyor belt, to joint with the upstream machine flexibly,
- High efficiency and convenient buffer for vial to realize the filling speed match with Freeze-dryer Loading speed,
- Mechanical parts has good LAF assurance design, and good cleaning design without cleaning dead leg.

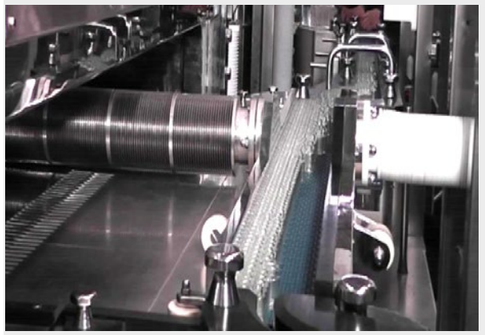
FRONT PUSHER SYSTEM

- Push the vials in to chamber and load into the shelf,
- With flexible control integrate pusher position with safety monitoring,
- Infeed method by Single Row loading, Row by Rows loading,Full Pack loading.

BACK PUSHER SYSTEM

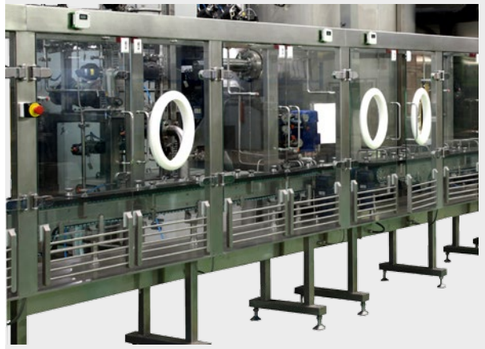
- Multi model movement control, to realize the control outfeed pusher data safety transfer,
- Air filled sealing patent structure for the outfeed pusher,
- Integrated pusher position with safety monitoring.





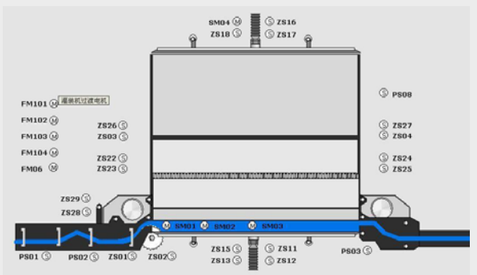
OUTFEED SYSTEM

- Equipped with vial moving detection device for outfeed,
- Outfeed transit integrated conveyor belt, to realize joint with capping machine.



STERILE ISOLATION SYSTEM

- ORABS and CRABS system are optional,
- It can be equipped with: safety door sensor, emergency button, key locker etc,options are as follows: LAF device, on line particle monitoring device, on line velocity monitoring, Settlement bacteria and airborne bacterial collecting, optical sensor etc.



CONTROL AND DOCUMENTATION SYSTEM

- User friendly HMI, adopts world brand PLC and motion servo control system, operating in the sterile room,
- Data transferring and sharing with freeze-dryer, and interlocking with filling machine and capping machine,
- Batch number record function, error recover function,
- Integration with RABS and other isolation system,
- GAMP5 documentation system is provided as option instead of new
- version GMP documentation, to ensure quality traceability.

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LTOTK Production Freeze-Dryer Technical Parameter

Model		LYOTK1	LYOTK3	LYOTK5	LYOTK7	LYOTK10	LYOTK15	LYOTK20	LYOTK25	LYOTK30	LYOTK35	LYOTK40
Shelf area		1	3	5	7	10	15	20	25	30	35	40
Valid shelf area (m^2)		1.0	2.88	5.66	7.7	10.18	15.01	20	24.65	29.93	35.37	40.81
Max. Vial loading Qty.	pc/Φ16mm	4264	12730	25080	30096	45144	66000	88275	104325	133386	157638	181890
	pc/Φ18mm	3404	9735	19500	23400	35100	52260	70015	82745	104082	123006	141930
	pc/Φ22mm	2280	6480	13120	15744	23616	34560	45738	54054	69564	82212	94860
Shelf size	width (mm)	455	644	944	944	944	1244	1244	1244	1544	1544	1544
	depth (mm)	615	970	970	1270	1270	1270	1524	1524	1830	1830	1830
Shelf No.		4+1	5+1	5+1	6+1	9+1	10+1	11+1	13+1	11+1	13+1	15+1
Shelf Space (mm)		80～130										
Shelf temperature range (℃)		(-55℃～+80℃)										
Condenser tempertature (℃)		≤-75℃										
Ultimate vacuum (mbar)		0.005										
Compressed air		>6BarG										
Condenser capacity for ice (kg)		25	65	105	140	220	290	400	530	640	750	850
length (mm)		2000	3000	4000	4800	5800	6200	6500	6600	6800	6800	7000
width (mm)		1200	1800	2300	2600	2500	2500	2600	2600	2600	2700	2700
height (mm)		2000	3000	3700	3000	3400	4100	4100	4300	4600	4800	4800
Weight (Kg)		3900	5400	10000	12000	16000	21000	23000	26000	30000	32000	34000
Main Power (Kw)		15	30	43	55	72	103	141	151	182	212	222
Cooling water (m3/h)		5	7	11	16	18	25	37	37	42	50	50
Pure steam consumption (kg/h)		40	60	100	150	210	260	300	320	380	380	450
P.W/WFI QTY (l/min)		60	90	120	150	160	200	230	260	280	280	300

Note: The above data is only for reference, the final data are subject to the contract or the technical specification.

Auto Preparation Tank System

Main application

It's mainly used for sterile medicine, biological product, TCM preparation etc. liquid mixing and sterile filtration in pharmaceutical factories.

Classification

Products: single product system, double product system, multiple product system.
Technology: one time liquid mixing, two times liquid mixing.

Characteristics

Truking's auto liquid mixing system is a whole solution provided from concept design according to different product requirements of each customer. It has been executed by idea advanced technical team and professional construction, verification team. Product technology optimization, no dead angle design can realize the advantages and characteristics including sterile system, modularization manufacture, user-friendly operation, auto CIP/SIP, self-control integration etc and provide whole traceability validation file. With strong comprehensive integration ability, the liquid mixing system and the filling device can realize no dead angle linkage. Meet the requirements of new standard GMP、GDP、GAMP5 etc.

We possess the advance processing device and mature manufacturing technology. Main configuration (such as pipe, pump, valve, filter, instrument, PLC ect.) adopts to international first-class brand according to the standard of ASME BPE, ISO. From the raw material 's procurement, inspection, storage, distribute to our products' molding, welding, nondestructive testing, surface finishing, pressure and sealing effect detection, spare parts assembly and products detection, whole process adopt track management, strict control product's quality.
Experienced engineer team will provide installation service of clean utility, sterile piping etc. at the site. The verifying process strictly complies with the GMP, GAMP5 etc. standard. Provide validation scheme draft, execute and related service for our customers to ensure the traceability of all files.

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LALUTK - RGV Series Mobile Auto Loading & Unloading System

Main technical parameter

Model & Capacity		LALUTK-RGV12-1	LALUTK-RGV15-1	LALUTK-RGV12-2	LALUTK-RGV15-2
Vial size (Body Dia.× height)	2ml(φ16×35)	24000 pcs/h	30000 pcs/h	30000 pcs/h	35000 pcs/h
	10ml(φ22×49.7)	20000 pcs/h	25000 pcs/h	24000 pcs/h	30000 pcs/h
	20ml(φ27×58)	12000 pcs/h	20000 pcs/h	15000 pcs/h	23000 pcs/h
	30ml(φ32×70)	8000 pcs/h	15000 pcs/h	1000 pcs/h	18000 pcs/h
	50ml(φ42.5×73)	5000 pcs/h	6000pcs/h	/	/
	100ml(φ51.6×94.5)	3000 pcs/h	4000pcs/h	/	/

Note: In above table, output is reverse to specification.The mitissa of model is 1, means loading by single row, The matissa is 2, loding by cloublerows,The final data are subject to the technical specification.

Main application

It is mainly used for transfer of the half stopperred vials from filling machine to Freeze-dryer, sterile transferring from Freeze-dryer to capping machine, with advanced integrated infeed and outfeed structure. It can realize the product automatic transferring without operator.

Characteristics

It can improve sterile assurance level,reduce quality control risk;
Reduce operators in sterile room, to reduce the microbe load in the room;
Adopt integrated control system, to realize the interiocking between loading and unloading system, freeze dryer, filling machine and capping machine ;
It has complete electric safety circuit, reliable detecting data analysis and alam function;
User friendly HMI, flexible control model, editable production recipe,and trace operation record.

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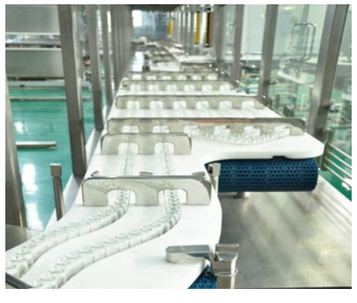
Bottle Orienting Alignment Loading System



Mobile Trolley System

Characteristics\application

It includes loading buffer unit, counting unit, pushing unit, ORABS LF system and belt conveying system, and auto overhead door system.
Loading system is connected with upstream filling device, realizes quick alignment of bottles, loading system can choose single row alignment or double rows alignment according to output requirement.

Characteristics\application

It is composed of board layer connection component, LF connection component, rotating location component, bottle clamping component, ORABS LF component, auto overhead door system.
Mobile trolley is connected with upstream material loading system, downstream unloading platform system and freeze-drier, can realize seamless docking between LF and board layer, and sterile auto loading & unloading process of the whole layer.
It realizes wireless communication with host control system, can flexibly arrange production period, realize unmanned auto loading & unloading procedure of sterile preparation.

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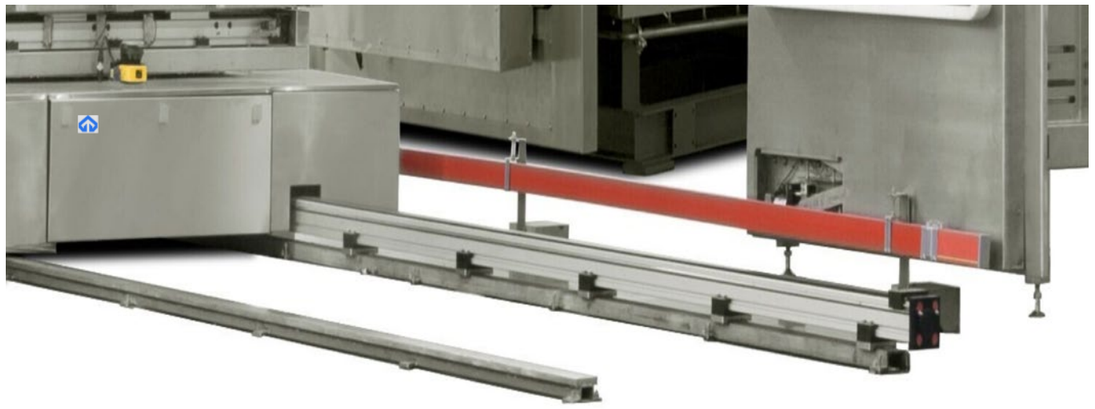
Moving Rail & Power Supply System



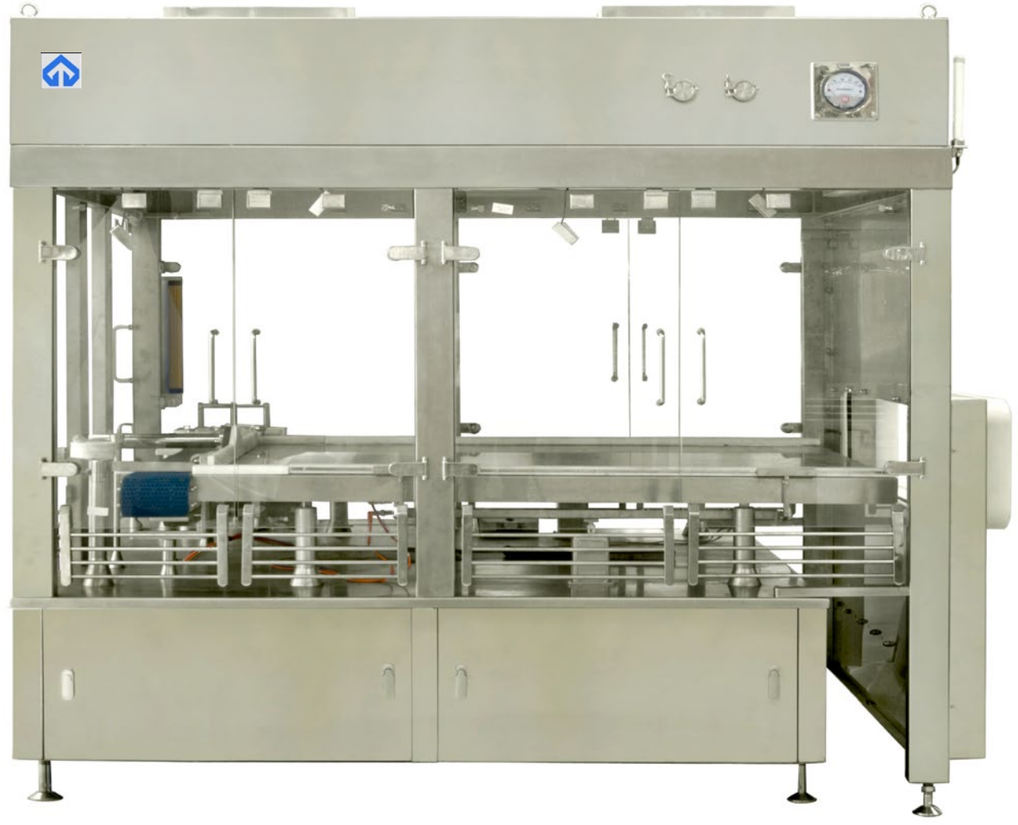
Characteristics\application

Moving rail adopts high precision linear motion module, realizes accurate docking between trolley and loading system, freeze-dry board layer and unloading system. The linear motion module adopts servo control technology, guarantees accurate positioning and stable transfer.
Power supply system adopts sliding contact wire or mobile cable reel to supply power, can select according to user's need.

Control & Documentaion system

Uster friendly MHI system integrated with the wireless network communication technology, servo motor control technology, barcode motion positioning contorl technology, lasers scanning mobile security contorl technology.
The mobile trolley system, loading system, and unloading downstream of capping machine inreal time.
Data transferring and sharing with freeze-dryer, and interlocking with filling machine and capping machine.
Batch number record function, error recover function.
GAMP5 doucumentation system is provided as option instead of new version GMP documentation, to ensure quality traceability.

Unloading System



Characteristics\application

Unloading system is connected with mobile trolley and upstream capping device, realizes separation between trolley unloading process and capping process.
It includes unloading liftable push rod unit, auto overhead door system, ORABS LF system, belt conveying system.

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SWS80-800 Series Stopper(Aluminum Cap) Washing Machine

Main technical parameter

Model	Effective load value	Output （Based on D20 Lyo Stopper)	Power	Net weight	PW&WFI （L/Batch）	Cooling Water （L）	Compressed Air （L）	Pure Steam （Kg）	Overall dimensions
SWS 80	80L	20000pcs/Batch	13kw	2000 kg	800	200	80	80	2600×2000×2400mm
SWS160	160L	40000pcs/Batch	15kw	2500 kg	1300	200	80	95	2900×2000×2400mm
SWS240	240L	60000pcs/Batch	17kw	3000 kg	1450	200	100	110	2900×2000×2400mm
SWS320	320L	80000pcs/Batch	19kw	3500 kg	1800	200	100	120	3080×2200×2500mm
SWS400	400L	100000pcs/Batch	22kw	4000 kg	2100	200	120	150	3080×2200×2500mm
SWS480	480L	120000pcs/Batch	24kw	4500 kg	2400	300	120	190	3250×2200×2500mm
SWS640	640L	160000pcs/Batch	26kw	5000 kg	2700	300	140	230	3300×2400×2600mm
SWS720	720L	180000pcs/Batch	30kw	5500 kg	3050	300	140	270	3450×2400×2600mm
SWS800	800L	200000pcs/Batch	32kw	6000 kg	3200	300	140	300	3600×2400×2600mm

Note 1: Power supply data is based on the machine include Electric heating & Drying option. Note 2: Valid load value is 35% of the washing machine inner drum space.Utility Consumption List (Per Batch).

Main application

Mainly used for washing and sterilizing rubber stopper(aluminum cap) in pharmaceutical factory.

Characteristics

SWS Series Stopper(aluminum cap) Washing Machine is divided into two types : drum-type and vertical-drum type based on structure and washing principle. It can finish pharmaceutical stopper (aluminum cap) washing, siliconization, sterilization, drying and cooling and auto unloading system process automatically. It adopts international advance design and manufacturing concept, with more than 30 patents. The high configuration can fully meet international standard requirement of EU CGMP and US FDA.

Drum-type adopts method of single arm hanging inner cylinder rotating structure, with 3 types of washing and SIP. There is no dead corner during washing with high washing efficiency.

Vertical-drum type adopts method of vertical washing drum swing, washing with water and air and SIP. There is no dead corner during washing and with less visible foreign particles.

Auto closed unloading system, sterile transfer and conveying system can be provided as optionsal according to user's manufacturing production model. It has operability, with less manual human intervention and highly guarantee the sterile environment.

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Liquid preparation

Main application

Truking's liquid preparation can provide liquid process engineering in pharmaceutical industry, integrating CIP and SIP function, combining automation, process control and information management system

Supplied to following industries:

Biotechnology

Accessory system integration of upstream medium preparation and centrifugal homogeneous equipment
Accessory system integration of downstream purification equipment
Production system integration of blood product
Production system integration of vaccine product
CIP/SIP

Chemical pharmaceutical field

Production system of sterile bulk drugs
Injection preparation system
Freeze drying injection preparation system
Infusion preparation system
Oral liquid preparation system
Eye drop preparation system
Fat emulsion preparation system
CIP/SIP

Characteristics

Full automatic preparation and transfer
Online automatic CIP system(automatically detect electrical conductivity)
Online automatic SIP system(automatically detect temperature)
Online automatic filter integrity test system (auto import by integrity detector)
Online automatic water supply weighing constant volume system(auto weighing)
Auto leakage test before SIP
Auto pressure maintaining after SIP
Call out running parameter according to products, realizes auto running of system, auto recording and printing of running time and parameter, and auto alarm.

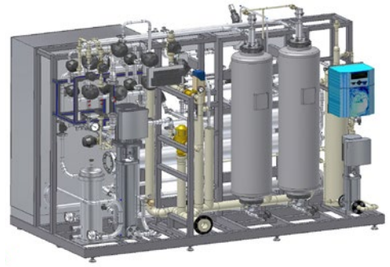
Example
Solution for preparation

Process	Solving method
Water supply/measuring	Inlet flowmeter Quality weighing in tank
Material input	Input material manually in sterile condition Sucked through feed opening Attached with sterile sampling port
Mixing	Mixer with frequency conversion Ring circling sealing and sterile liquid sealing system Magnetic stirring at bottom of container Homogenizer
Temperature control	Realize open or close with proportional control through double-layer jackets Heating/cooling system
Sampling	Sampling system which can be sterilized Centrifugal pump, rotor pump suitable for CIP/SIP
Transfer	Filtered sterile compressed air or Nitrogen
Filtration	Pre filtering and sterile filtration Online integrity test
Store	Temperature control of magnetic stirring Nitrogen isolation Sterile sampling

Purified water preparation equipment

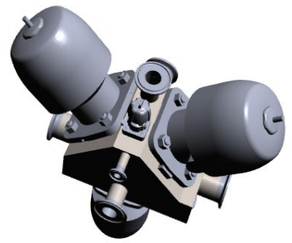
Main application

Purified water is used for washing, preparation in production of non-sterile medicine, first cleaning of container for injection and sterile medicine, and water source for preparation of WFI(pure steam).
Purified water preparation equipment provided by Truking adopts advanced technology, has less dead angle, higher water production rate and full automatic running.



Characteristics

1.Modularization design
2.Multi-pore diaphragm valves design for product-contact
3.System water recovery rate maximum reach to 88%
4.Automatic output and recovery control
5.Precision and flexiblity of hot sanitization
6.Pre-validated systems and project management



Main parameter

Indicator of Truking's purified water preparation equipment

	Unit	National Pharmacopoeia	USA Pharmacopeia	Europe Pharmacopeia	Truking's indicator
Electrical conductivity	us/cm	< 4.3@20℃	< 1.3@25℃	< 4.3@20℃	< 0.5@20℃
TOC	ppb	< 500	< 500	< 500	< 50
Microbe	cfu/ml	< 100	< 100	< 100	< 10

Parameter

Type			500	1000	1500	3000	4000	6000	8000	10000
Design Parameter										
Capacity	design temperature 15 ° C	m³/h	0.3 - 0.5	0.6 - 1.0	1.2 - 1.8	2.0 - 3.5	3.0 - 4.0	4.0- 7.0	6.0 - 8.0	9.0 - 10
Max. drinking water	during normal operation	m³/h	0.4 - 0.7	0.8 - 1.3	1.6 - 2.4	2.7 - 4.7	4.0 - 5.3	5.3 - 9.3	8.0 - 10	12 - 13
	with recovery RO	m³/h	-	-	-	2.2 - 3.9	3.3 - 4.4	4.4 - 7.8	6.7 - 9.0	10 - 11
	for softener regeneration additionally required	m³/h	1.2	1.2	1.2	2.3	2.3	2.3	5.7	t5.7
Total Water Conversion Factor	during normal operation		> 75 %							
	with recovery RO		-			90 %				
Dimensions										
Length (B)	mm	2600	2600	2600	3800	3800	3800	4000	4000	
Depth (T)	mm	1400	1400	1400	1600	1600	1600	1800	1800	
Height (H)	mm	2100	2100	2100	2100	2100	2100	2350	2350	
Weight	kg	1400	1600	1650	2200	2400	2600	3200	3400	

WFI preparation equipment

Main application

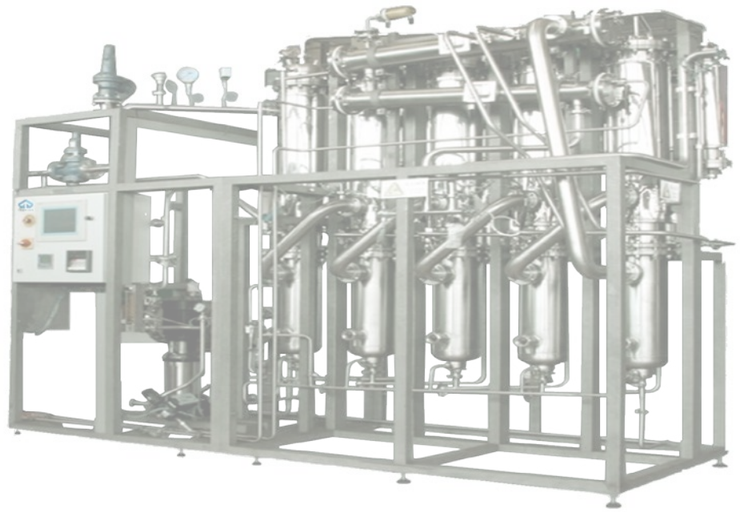
It adopts distillation to prepare WFI, which is used for the final washing water for packing material contacting with sterile product, ingredient of injection and sterile cleaning agent, refining of sterile bulk drugs.
Adopts advanced three separation technology, realizes high efficiency separation of endotoxin, has better quality control

Characteristics

Good quality of water, endotoxin<0.01EU/mL
High water production rate with high quality
Output water temperature is stable and adjustable
Design pressure of heat transfer column is 8bar, has high safety and long using life
Separation method: Flash evaporation, 180 degree turn, external spiral centrifugal separation
Full automatic operation, unattended operation
Quiet running, no big noise
Full and complete documentation
Package in compliance with WHO,EU GMP,FDA, cGMP

Water quality by Truking

	Unit	National Pharmacopoeia	USA Pharmacopeia	Europe Pharmacopeia	Truking's indicator
Electrical conductivity	us/cm	< 1.1@20℃	< 1.3@25℃	< 1.1@20℃	< 0.5@20℃
TOC	ppb	< 500	< 500	< 500	< 50
Microbe	cfu/100ml	< 10	< 10	< 10	< 10
Endotoxin	EU/ml	< 0.25	< 0.25	< 0.25	< 0.01



Main parameter

capacity@3-8bar L/hr	Model	Dimension (L x W x H)	WFI Outlet Port Height (mm) by gravity	Dry Weight (kg)	Hydrostatic weight (kg)	U[VAC]	f[Hz]	P[kW]	IN[A]	Heat Rejection to room @ 20℃
445~890	500-W-4	2377 x 1104 x 2600	2270	990	1180	380	50	1.25	2.5	6.9kw (23540 Btu/h)
445~890	500-W-5	2741 x 1104 x 2600	2270	1190	1410	380	50	1.25	2.5	8.7kw (29680 Btu/h)
786~1,670	500-W-6	3105 x 1104 x 2600	2270	1450	1700	380	50	1.25	2.5	10.5kw (35830 Btu/h)
786~1,670	1000-W-4	2628 x 1200 x 2890	2470	1310	1690	380	50	1.5	3.15	13kw (44360 Btu/h)
786~1,670	1000-W-5	3050 x 1200 x 2890	2470	1560	2030	380	50	1.5	3.15	16kw (54590 Btu/h)
786~1,670	1000-W-6	3470 x 1200 x 2890	2470	1890	2240	380	50	1.5	3.15	19kw (64830 Btu/h)
1,820~3,450	2000-W-5	3208 x 1200 x 3350	2800	2240	3030	380	50	3	7	29kw (98950 Btu/h)
1,820~3,450	2000-W-6	3692 x 1200 x 3350	2800	2730	3660	380	50	3	7	33.5kw (114300 Btu/h)
1,820~3450	2000-W-7	4226 x 1200 x 3350	2800	3110	4170	380	50	3	7	38kw (129660 Btu/h)
3,140~6,000	3000-W-5	3785 x 1450 x 3550	3000	3260	4900	380	50	4.15	8.5	31kw (105770 Btu/h)
3,140~6,000	3000-W-6	4355 x 1450 x 3550	3000	3930	5880	380	50	4.15	8.5	37kw (126240 Btu/h)
3,140~6,000	3000-W-7	4975 x 1450 x 3550	3000	4500	6750	380	50	4.15	8.5	43kw (146720 Btu/h)
5,460~10,750	5000-W-6	4875 x 1855 x 4250	3670	4880	8040	380	50	7.5	15	47kw (160360 Btu/h)
5,460~10,750	5000-W-7	5560 x 1855 x 4250	3670	5620	9270	380	50	7.5	15	54.5kw (185950 Btu/h)
5,460~10,750	5000-W-8	6195 x 1855 x 4250	3670	6220	10370	380	50	7.5	15	62kw (211540 Btu/h)

Pure steam Generator

Main application

It produces clean steam through three-level separation. The clean steam is used for wet heat sterilization of sterile material, container, device, clothes or other things need to enter sterile operation area, and of culture medium

Characteristics

Short response time, about 30s
Pure steam pressure output range: 2-5 bar
Output PID ratio control
Typical waste discharge rate:2-8%
Very low running cost
Steam quality meet requirement of non-condensable gas content, saturation(dryness), superheat defined in HTM2010(EN285)

Main parameter

Model	Dimension(L x W x H) mm	Dry Weight (kg)	Hydrostatic weight (kg)	U[VAC]	f[Hz]	P[kW]	IN[A]	Heat Rejection to room @ 20℃
500-S	1200 x 1000 x 2280	420	465	380	50	0.74	3.5	3.6kw(12340 Btu/h)
1000-S	1200 x 1250 x 2750	680	760	380	50	0.74	3.5	5.1kw(17320 Btu/h)
2000-S	1455 x 1300 x 3200	835	965	380	50	1.3	6	7.5kw(25480 Btu/h)
3000-S	1585 x 1450 x 3500	1160	1440	380	50	1.85	7.5	9.8kw(33460 Btu/h)
5000-S	1650 x 1600 x 4150	1665	2060	380	50	2.2	10	12.4kw(42470 Btu/h)

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Water distribution system

Characteristics

Modular design
Hot water or ozone sanitization of PW distribution
Superheated water or pure steam sanitisable WFI distribution skid
Three dimension design pre assembly
Wet FAT

Main application

Produced purified water, WFI, pure steam are sent to each point through distribution system. Purified water/WFI are stored in corresponding tank, then sent to each point through pump. Pure steam is through pipe.
Truking assembles distribution pump for purified water/WFI, heat exchanger, UV lamp, conductivity and other instruments on one frame, is convenient for manage and maintain, has a clean looking. It connected with pipe in site through 2 ports.

Main parameter
PW/WFI distribution skid

Typ		25	40	50	65
Design Parameter					
Nom. circulation rate	m3/h	5	10	15	20
Max. simultaneous water consumption*2)	m3/h	4.5	7	14	16
Max. outlet pressure after LOOP, max	bar	7	7	7	7
Loop return pressure	bar	1 - 2	1 - 2	1 - 2	1 - 2
Operating temperature	° C	10 - 25	10 - 25	10 - 25	10 - 25
UV radiator power	W	130	390	390	520
Cooling heat exchanger power	kW	17	35	52	70
Cooling water inlet/outlet	° C	6 - 15	6 - 15	6 - 15	6 - 15
Supply					
Compressed air	bar	6 - 10			
Compressed air consumption	Nm^3/h	0.1	0.1	0.1	0.1
Cooling water rate*1)	t	1.7	3.5	5	6.7
Max. power/currency (sum of all consumers)	kW	6	8	10	12
Electric connections	V/Hz	400/50			
Hydraulic					
Inlet	Welding end				
ASME BPE DN	40/25	50	50	65	
Outlet to loop	TC DN	25	40	50	65
Loop return to tank	TC DN	25	40	40	50
Waste water manifold	Flange DN	25	40	40	40
Dimensions					
Length (B)	mm	1500	1500	2000	2000
Depth (T)	mm	1200	1200	1200	1200
Height (H)	mm	2200	2200	2200	2200
Weight	kg	820	870	920	970

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a

ALXL Series U Shape Ampoule Compact Line for Washing, Sterilizing&Drying, Filling&Sealing

Main technical parameter

Model	Suitable sizes	Output	Needle Qty.	Power (Including normal working consumption)	Net weight	Overall dimensions
ALXL1～20-F2	1-20ml(ampoule)	10000-33000 pcs/h	12	102.5kw（60kw）	10600kg	8850×4750×2400mm
ALXL1～10-F1	1-10ml(ampoule)	10000-34000 pcs/h	12	93kw（51kw）	9700kg	8700×4200×2400mm
ALXL1～20-E2	1-10ml(ampoule)	6000-28000 pcs/h	10			
ALXL1～5-E1	1-20ml(ampoule)	10000-28000 pcs/h	10	76.5kw（41kw）	8900kg	7900×3700×2400mm
ALXL1～20-D	1-20ml(ampoule)	6000-23000 pcs/h	8	69kw（41kw）	8600kg	7200×3700×2400mm
ALXL1～20-C1		6000-18000 pcs/h	6	68.2kw（41kw）	8200kg	7200×3300×2400mm
ALXL1～20-C2		4000-12000 pcs/h	4	47.4kw（28kw）	7600kg	6800×3300×2400mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

Main application

This line is composed of AQCL series vertical ultrasonic washing machine, KSZ series sterilizing & drying tunnel, AGFL series filling & sealing machine. Each machine can run independently, or be connected as a compact line. It can finish processing procedures such as: water spraying, ultrasonic washing, clamping & overturning ampoules by manipulator, water flushing (internal and external), air flushing(internal and external), pre-heating, drying & sterilizing, depyrogenation, cooling, (pre-nitrogen), filling, (post-nitrogen), pre-heating, sealing and etc. It is mainly used for production of small volume injectable products in pharmaceutical factories. The combi type is suitable for both ampoule and vial production.

Characteristics

It adopts U shape layout sticking to the wall, effectively realizes function division, reduces cross contamination and improve sterile assurance level of production. It is the development trend of sterile products manufacturing and meets international advance level.

Vertical ultrasonic washing machine adopts ultrasonic washing and alternant jetting water and airflow. It is the most popular washing equipment with highest clarity in the world. In whole washing process, three washing mediums adopt independent needles, each group of needles only flush one washing medium, which avoids cross contamination.

Sterilizing & drying tunnel adopts the principle of laminar flow and hot air high temperature sterilization process, which can make containers finishing aseptic production from pre-heating, drying, sterilizing to cooling. It is the most popular sterilizing & drying equipment with best sterilizing effect. It has good heat distribution and depyrogenation effect.

Ampoule filling & sealing machine adopts variable speed starwheel to infeed ampoules, stepping type positioning for filling & sealing and balcony structure. It has good running stability and high qualified product rate. It adopts U shape structure, sealed ampoules are collected in the D class area, maintainance and repair is completed in D class area, and filling system is put in the front of the machine, which reduces A class area and clean area, number of persons in clean area, and contamination risks.

It adopts PLC control with HMI operation, which can control the whole line running or independent machine. It ensures normal running of the compact line with high automation, less operator and low labor intensity.

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ALX Series Linear Shape Ampoule Compact Line for Washing, Sterilizing & Drying, Filling & Sealing

Main application

This line is composed of AQCL series vertical ultrasonic washing machine, KSZ series sterilizing & drying tunnel, AGF series filling & sealing machine. Each machine can run independently, or be connected as a compact line. It can finish processing procedures such as: water spraying, ultrasonic washing, clamping & overturning ampoules by manipulator, water flushing (internal and external), air flushing(internal and external), pre-heating, drying & sterilizing, depyrogenation, cooling, (pre-nitrogen), filling, (post-nitrogen), pre-heating, sealing and etc. It is mainly used for production of small volume injectable products in pharmaceutical factories. The combi type is suitable for both ampoule and vial production.

Characteristics

Vertical ultrasonic washing machine adopts ultrasonic washing and alternant jetting water and airflow. It is the most popular washing equipment with highest clarity in the world. In whole washing process, three washing mediums adopt independent needles, each group of needles only flush one washing medium, which avoids cross contamination.

Sterilizing & drying tunnel adopts the principle of laminar flow and hot air high temperature sterilization process, which can make containers finishing aseptic production from pre-heating, drying, sterilizing to cooling. It is the most popular sterilizing & drying equipment with best sterilizing effect. It has good heat distribution and depyrogenation effect.

Ampoule filling & sealing machine adopts variable speed starwheel to infeed ampoules, multi-stepping type positioning for filling & sealing and balcony structure. It has good running stability and high qualified product rate.

It adopts PLC control with HMI operation, which can control the whole line running or independent machine. It ensures normal running of the compact line with high automation, less operator and low labor intensity.

Main technical parameter

Model	Suitable sizes	Output	Needle number	Power	Net weight	Overall dimensions
ALX1～5-G2	1-5ml(ampoule)	20000-42000 pcs/h	16	95.45kw（60kw）	10200kg	11000×2820×2340mm
ALX1～10-G1	1-10ml(ampoule)	10000-38000 pcs/h	14			
ALX1～20-F2	1-20ml(ampoule)	10000-32000 pcs/h	12			
ALX1～10-F1	1-10ml(ampoule)	10000-32000 pcs/h	12	86.15kw（51kw）	9200kg	10300×2620×2340mm
ALX1～20-E2	1-20ml(ampoule)	3600-28000 pcs/h	10			
ALX1～5-E1	1-5ml(ampoule)	10000-28000 pcs/h	10	69.5kw（41kw）	8500kg	9000×2620×2340mm
ALX1～20-D	1-20ml(ampoule)	3600-23000 pcs/h	8	63.65kw（41kw）	8200kg	8300×2620×2340mm
ALX1～20-C1	1-20ml(ampoule)	5500-18000 pcs/h	6	63.65kw（41kw）	7800kg	7900×2620×2340mm
ALX1～20-C2	1-20ml(ampoule)	3000-12000 pcs/h	4	43.5kw（28kw）	7200kg	7500×2510×2340mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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AQCL Series Vertical Ultrasonic Washing Machine

Main application

This machine is mainly used for washing of ampoules in pharmaceutical factories; it also can be used for washing other glass containers such as vials and oral liquid bottles.

Characteristics

This machine uses vertical gyration structure. It adopts the principle of ultrasonic cleaning and alternant jetting water & airflow washing to clean the vials one by one. Circulation water, compressed air and WFI adopts independent needles which are inserted into vial to flush, no cross contamination, no water and air loss, energy saving, and good washing effect. It can observe whole washing process, and is convenient for operation and maintenance.

Main technical parameter

Model	Suitable sizes	Output	Water consumption	Air consumption	Power	Net weight	Overall dimensions
AQCL28/6	1-20ml (ampoule)	16000-46000 pcs/h	0.2-0.3MPa 1.4m^3/h	0.6MPa 70m^3/h	25kw	3000kg	2530×2850×1620mm
AQCL28/5		14000-39000 pcs/h	0.2-0.3MPa 1.2m^3/h	0.6MPa 60m^3/h	25kw	3000kg	2530×2850×1620mm
AQCL20/6		10000-34000 pcs/h	0.2-0.3MPa 1.0m^3/h	0.6MPa 50m^3/h	15.7kw	2400kg	2400×2400×1620mm
AQCL20/5		6000-29000 pcs/h	0.2-0.3MPa 0.9m^3/h	0.6MPa 45m^3/h	15.7kw	2400kg	2400×2400×1620mm
AQCL20/4		6000-24000 pcs/h	0.2-0.3MPa 0.8m^3/h	0.6MPa 40m^3/h	15.7kw	2400kg	2400×2400×1620mm
AQCL20/3		6000-18000 pcs/h	0.2-0.3MPa 0.6m^3/h	0.6MPa 35m^3/h	15.7kw	2300kg	2400×2400×1620mm
AQCL20/2		6000-12000 pcs/h	0.2-0.3MPa 0.6m^3/h	0.6MPa 30m^3/h	15.7kw	2200kg	2400×2400×1620mm
AQCL12/4		6000-14000 pcs/h	0.2-0.3MPa 0.6m^3/h	0.6MPa 32m^3/h	15.7kw	1800kg	2130×2355×1620mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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KSZ Series Sterilizing & Drying Tunnel

Main application

This machine is mainly used for sterilizing, drying and depyrogenation of ampoules and other glass containers such as vials and oral liquid bottles in pharmaceutical factories.

Characteristics

The tunnel is divided into three zones: pre-heating zone, sterilizing zone and cooling zone. It adopts the principle of laminar flow and hot air high temperature sterilization process to realize containers' sterilization and depyrogenation; adopts core patent technologies such as negative pressure sealing and air flow dividing, and has good heat distribution and depyrogenation effect.

Main technical parameter

Model	Suitable sizes	Output	Effective width of conveyor belt	Power	Netweight	Overall dimensions
KSZ620/60B	1-20ml (ampoule)	12000-50000 pcs/h	600mm	72.1kw	3800kg	4310×1700×2410mm
KSZ620/43B		8000-40000 pcs/h	600mm	54.3kw	3500kg	3680×1700×2410mm
KSZ620/43-E		8000-36000 pcs/h	600mm	47.55kw	3200kg	2760×1565×2410mm
KSZ420/20		6000-23000 pcs/h	400mm	33.17kw	2500kg	2360×1465×2350mm

Note: In above table, output is reverse to glass containe. That means smaller glass container, larger output. For details, please take the reference of quotation.

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AGFL Series Ampoule Filling & Sealing Machine

Main application

It is mainly used for filling and sealing of ampoule under aseptic conditions in pharmaceutical factories.

Characteristics

This machine structure is multi-stations stepping conveying system with balcony structure. It can finish procedures such as ampoule conveying, pre-nitrogen, filling, post nitrogen, pre-heating and sealing etc. It adopts variable speed starwheel to infeed ampoules and stepping type positioning for filling and sealing, it has good running stability and high qualified product rate.
It adopts U shape structure, sealed ampoules are collected in the D class area, maintainance and repair is completed in D class area, and filling system is put in the front of the machine, which reduces A class area and clean area, number of persons in clean area, and contamination risks. It adopts U shape in-wall structure with single side operation. It can realize function division effectively, reduce cross contamination, improve sterile assurance of production. It is the development trend of sterile products manufacturing.and meets international advance level.
Based on all kinds of advanced technology in company, together with the modern filling principle, we designed and developed this kind of high speed ampoule sterile filling& sealing machine. There are options for ORABS, CIP&SIP for filling system. The high configuration of this method can fully meet EU cGMP and FDA standard.

Main technical parameter

Model	Suitable sizes	Output	LPG consumption	Oxygen consumption	Power	Net weight	Overall dimensions
AGFL16/12	1-20ml(ampoule)	10000-33000 pcs/h	0.05MPa 0.6m^3/h	0.3-0.5MPa 1.8m^3/h	9.5 kw	4000kg	5000×2000×1850mm
AGFL12	1-10ml(ampoule)	10000-34000 pcs/h		0.3-0.5MPa 1.8m^3/h	9.5kw	3500kg	4600×2000×1850mm
AGFL12/10	1-20ml(ampoule)	6000-28000 pcs/h	0.05MPa 0.5m^3/h	0.3-0.5MPa 1.5m^3/h	8.7 kw		
AGFL8/10	1-5ml(ampoule)	6000-28000 pcs/h		0.3-0.5MPa 1.5m^3/h	8.7 kw	3000kg	4040×2000×1850mm
AGFL8	1-20ml(ampoule)	6000-24000 pcs/h	0.05MPa 0.4m^3/h	0.3-0.5MPa 1.2m^3/h	7.9 kw		
AGFL4/6		6000-18000 pcs/h	0.05MPa 0.3m^3/h	0.3-0.5MPa 0.9m^3/h	7.1 kw	2600kg	3300×2000×1900mm 3300×2000×1850mm
AGFL4		4000-12000 pcs/h	0.05MPa 0.2m^3/h	0.3-0.5MPa 0.6m^3/h	6.3 kw		

Note: In above table, output is reverse to glass container. That means smaller glass container, larger output. For details, please take the reference of quotation.

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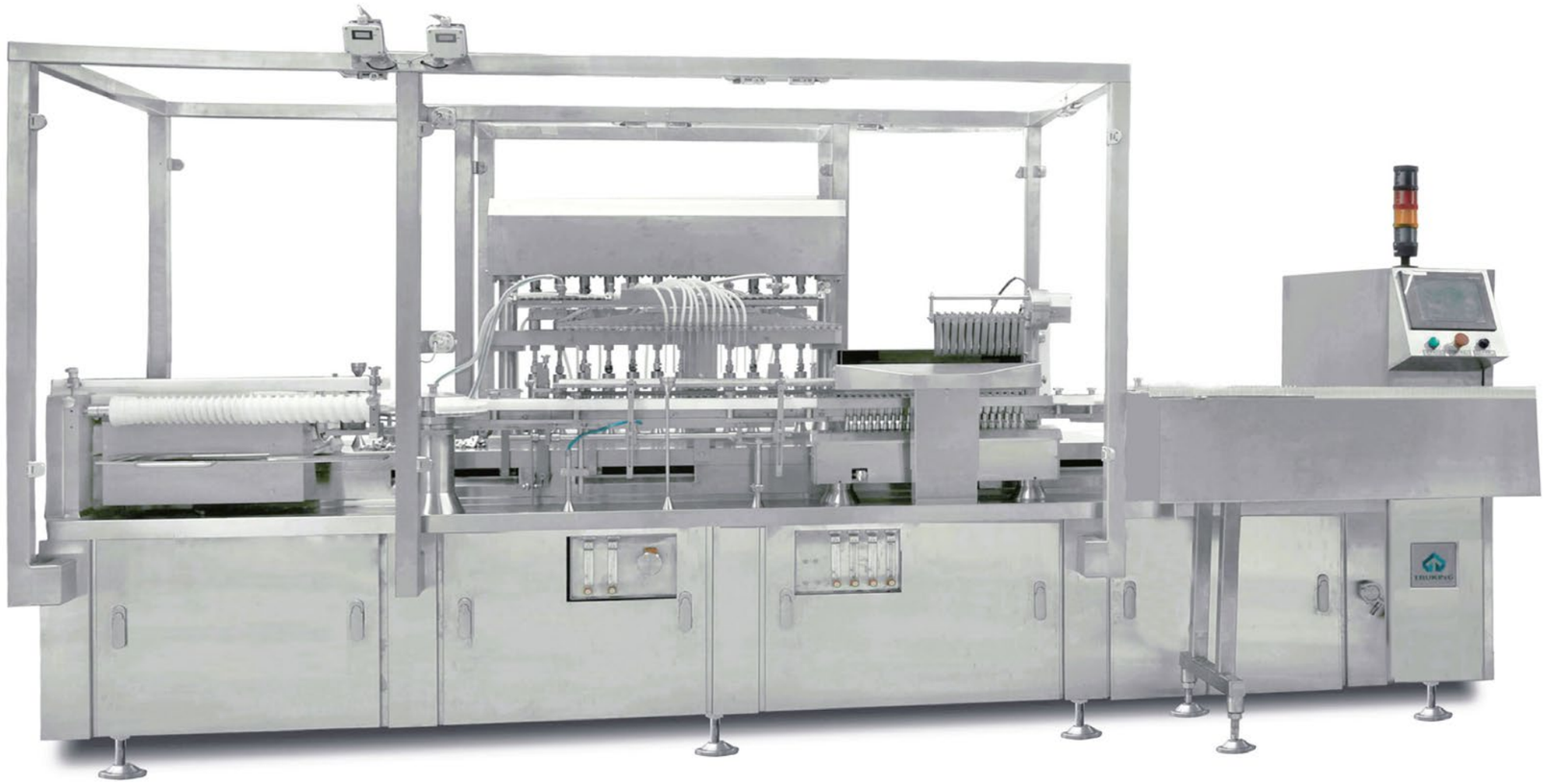
AGF Series Ampoule Filling & Sealing Machine



Main application

It is mainly used for filling and sealing of ampoule under aseptic conditions in pharmaceutical factories.

Characteristics

This machine structure is multi-stations stepping conveying system with balcony structure. It can finish procedures such as ampoule conveying, pre-nitrogen, filling, post nitrogen, pre-heating and sealing etc. It adopts variable speed starwheel to infeed ampoules and stepping type positioning for filling and sealing, it has good running stability and high qualified product rate. It can be equipped with glass pump, SS pump, ceramic pump or peristaltic pump for filling as per customer's requirement.

Based on all kinds of advanced technology in company, together with the modern filling principle, we designed and developed this kind of high speed ampoule sterile filling& sealing machine. There are options for ORABS, CIP&SIP for filling system. The high configuration of this method can fully meet EU cGMP and FDA standard.

Main technical technial

Model	Suitable sizes	Output	LPG consumption	Oxygen consumption	Power	Net weight	Overall dimensions
AGF16	1-5ml(ampoule)	20000-42000 pcs/h	0.05MPa 0.8m^3/h	0.3-0.5MPa 2.4m^3/h	5.4kw	3400kg	3830×1800×1850mm
AGF16/12	1-20ml(ampoule)	10000-33000 pcs/h	0.05MPa 0.6m^3/h	0.3-0.5MPa 1.8m^3/h	5.4kw	3400kg	3830×1800×1850mm
AGF12	1-10ml(ampoule)	10000-34000 pcs/h	0.05MPa 0.6m^3/h	0.3-0.5MPa 1.8m^3/h	5.4kw	3000kg	3700×1800×1850mm
AGF12/10	1-20ml(ampoule)	10000-28000 pcs/h	0.05MPa 0.5m^3/h	0.3-0.5MPa 1.5m^3/h	5.4kw	3000kg	3700×1800×1850mm
AGF8/10	1-5ml(ampoule)	10000-29000 pcs/h	0.05MPa 0.5m^3/h	0.3-0.5MPa 1.5m^3/h	5.4kw	2600kg	3120×1800×1850mm
AGF8	1-20ml(ampoule)	6000-24000 pcs/h	0.05MPa 0.4m^3/h	0.3-0.5MPa 1.2m^3/h	5.4kw	2600kg	3120×1800×1850mm
AGF4/6	1-20ml(ampoule)	6000-18000 pcs/h	0.05MPa 0.3m^3/h	0.3-0.5MPa 0.9m^3/h	5kw	2200kg	2800×1800×1850mm
AGF4	1-20ml(ampoule)	3000-12000 pcs/h	0.05MPa 0.2m^3/h	0.3-0.5MPa 0.6m^3/h	5kw	2200kg	2800×1800×1850mm

Note: In above table, output is reverse to glass container. That means smaller glass container, larger output. For details, please take the reference of quotation.

a

AGS Series Filling, Sealing & Stoppering Machine

Main application

It is the combi model, and mainly used for filling and sealing/Stoppering of ampoule and vials under aseptic conditions in pharmaceutical factories.

Characteristics

This machine structure is multi-stations step conveying system and balcony structure. It can finish procedures such as ampoule conveying, pre-nitrogen, filling, post-nitrogen, pre-heating, and sealing or vial conveying, pre-nitrogen, filling, post-nitrogen, stopper orientation and stoppering, etc. It adopts variable speed starwheel to infeed ampoules/vials and stepping type positioning for filling and sealing/stoppering, it has good running stability and high qualified product rate. It can be equipped with glass pump, SS pump, ceramic pump or peristaltic pump for filling as per customer's requirement.

Main technical parameter

Model	Suitable sizes	Output	LPG consumption	Oxygen consumption	Power	Net weight	Overall dimensions
AGS12/10	1-20ml(ampoule) 2-10ml(vial)	8000-28000 pcs/h(ampoule) 8000-20000pcs/h(vial)	0.05MPa 0.5m^3/h	0.3-0.5 MPa 1.5m^3/h	7.9kw	3500kg	3900×2500×1850mm
AGS12/8	1-20ml(ampoule) 2-25ml(vial)	6000-23000 pcs/h(ampoule) 6000-18000pcs/h(vial)	0.05MPa 0.4m^3/h	0.3-0.5 MPa 1.5m^3/h	7.9kw	3500kg	3900×2500×1850mm
AGS8	1-20ml(ampoule) 2-10ml(vial)	6000-23000 pcs/h(ampoule) 8000-18000pcs/h(vial)	0.05MPa 0.4m^3/h	0.3-0.5 MPa 1.5m^3/h	7.9kw	3000kg	3320×2500×1850mm
AGS4	1-20ml(ampoule) 2-25ml(vial)	3000-12000 pcs/h(ampoule) 4000-10000pcs/h(vial)	0.05MPa 0.2m^3/h	0.3-0.5 MPa 0.6m^3/h	7.9kw	2500kg	3000×2500×1850mm

Note:In above table, output is reverse to glass container. That means smaller glass container, larger output. For details, please take the reference of quotation.

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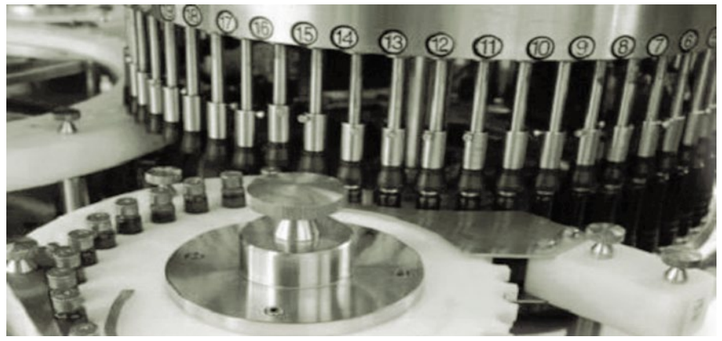
Automatic Inspection Machine



Main technical parameter

Model	Suitable size	Max. output	Power	Net weight	Dimension	Remark
AJDZ48A	1-20ml ampoule	400P/min	7.5KW	2500Kg	2780×1700×2280mm	
YJDZ48A	10-20ml oral liquid bottle	300P/min				
KJDZ48A	2-10ml vial	350P/min				
AJDZ48B/AJDZ48C	1-20ml ampoule	400P/min	7.5KW	2800Kg	2780×2400×2280mm	B:double channels model, C:single channel model
YJDZ48B/YJDZ48C	10-20ml oral liquid bottle	300P/min				
KJDZ48B/KJDZ48C	2-10ml vial	350P/min				
AJDZ80/AJDZ80B	1-20ml ampoule	600P/min	11KW	4000Kg	3330×3000×2280mm	B:double channels model, no letter:single channel model
YJDZ80/YJDZ80B	10-20ml oral liquid bottle	400P/min				
KJDZ80/KJDZ80B	2-10ml vial	600P/min				
KJDZ40/KJDZ40B	5-100ml vial	300P/min				
YJDZ40/YJDZ40B	10-50ml oral liquid bottle	300P/min				

Note: In above table, output is reverse to specification. That means smaller specification,larger output.

Main application

It is mainly used for automatic detection of visible particles cosmetic defect and sealing defect in ampoule injection, vial injection, oral liquid product and freeze-dry products in pharmaceutical factories.

Control system

Advanced tablet PC control system can realize operation real time monitoring and remote diagnosis.
Modularized software design, core algorithm with Plug-in, easy for update and maintenance.
With world well-known components, including camera,lens,light source,servo motor and Industrial PC.
Control system comply with FDA 21 CFR Part 11.

Characteristics

It adopts full servo drive system to realize the high speed , stability and precision of operations and improve the quality of caputred images.
High resolution frame rate image acquisition and high speed image processing techniques to improve reliability and repeatability of detection.
It meets precision requirement stipulated in Pharmacopoeia, the minimal detectable precision is 40 μm. The detection precision is adjustable as user's requirement.
For detection of visible particles in injection products, it adopts effective bubble screening algorithm, which minimizes the false detection rate. It applies an intelligent approach to classify the detected particles, and by using these automatically generated statistic data one can improve the technical level.
The machine has functions with authority management system and electronic signature, and the operation state can be monitored in real time.
The software has complete database function, can manage detection recipe, store detection result, make KNAPP test, realize human-machine interaction.
The software has off-line analysis function, can reproduce detection and analysis process.
It is suitable for detection requirement of medicine with different color, state, concentration, character, can place detection station and light system flexibly. It adopts customizing LED light source and strobe control technology, extends using life of light source.

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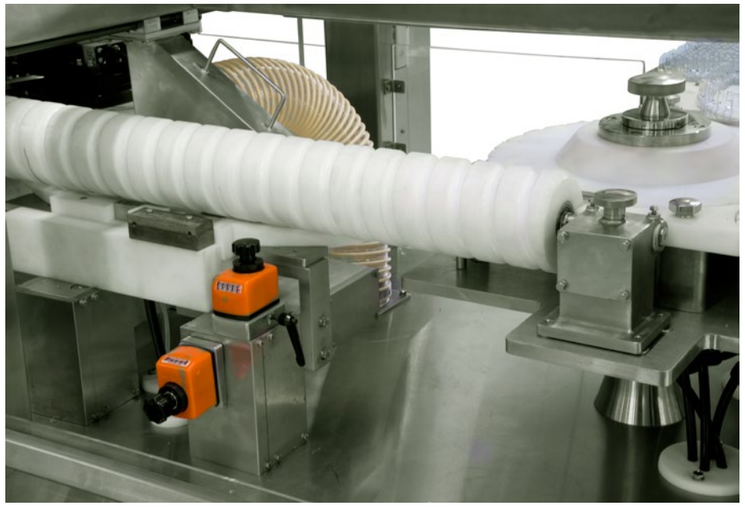
Automatic Inspection & Leak Test Machines



Control system

Advanced tablet PC control system can realize operation real time monitoring and remote diagnosis, Modularized software design, core algorithm with Plug-in, easy for update and maintenance,
With world well-known components, including camera,lens,light source,servo motor and Industrial PC. Control system comply with FDA 21 CFR Part 11.

Main technical parameter

Type	Suitable size	Max. output	Power	Net weight	Overall dimensions
AJL400	1-20ml ampoule	400pcs	9.8Kw	3400kg	3990×1840×2280mm
KJL400	2-10ml vial				

Note: In above table, output is reverse to specification. That means smaller specification,larger output.

Main application

It is mainly used for visible particle inspection, sealing defect inspection and leak testing for ampoules, vials and powder vials in pharmaceutical factories.

Characteristics

It adopts full servo drive system, realizes high speed, stable and accurate running. Light inspection and leak testing are integrated in one machine automatically, saves energy and reduces consumption, is proprietary technology of Truking.
It adopts visual detection method to inspect visible particle. Bottles on each inspection station are stopped immediately after high speed rotation, particle in bottles move in different curve under inertia. Cameras collect pictures continuously, and judge particle through Image Processing Technology. Main inspection items include glass debris, fibers, hairs, black block, white block, colorful block and other insoluble substances.
It adopts high voltage discharge leak testing technology to inspect leakproofness after sealing, used for closed container made of insulating material. If there is pin hole or crack on container, high voltage current will enter solution through it, produce different current value from qualified containers, and will be detected. Main inspection part include bottle top and bottom, optional items include bottle body and bottle neck.
It adopts servo drive system, has reliable and stable running, high automation degree and high inspection precision, fully meets inspection requirement stipulated in Pharmacopoeia.

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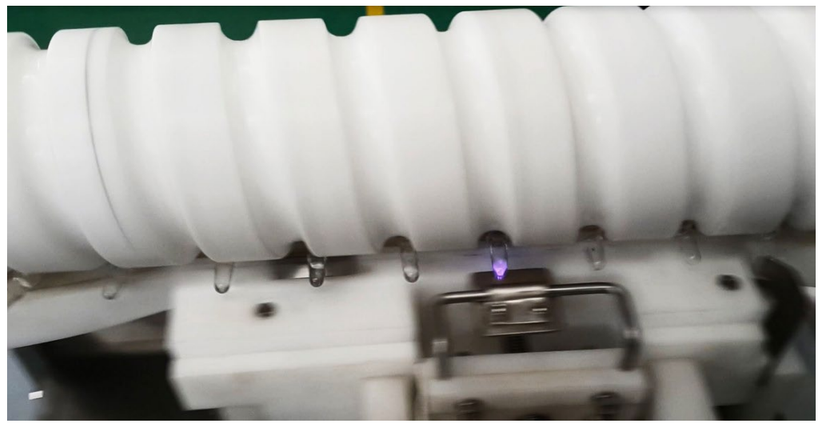
Automatic Leak Test Machine



Control system

It adopts Industrial PC control, with user friendly HMI. The operation with authority management functions and can be monitored the operation state in real time. It adopts modularized software design and world well-known components.

Main technical parameter

Type	Suitable size	Max. output	Power	Net weight	Overall dimensions
AJL400A	1-20ml Ampoule	400pcs	1.55kW	1700kg	2950×1970×1520mm
KJL400A	2-10ml vial				

Note: In above table, output is reverse to specification. That means smaller specification,larger output.

Main application

It is used for the leak testing of conducting liquid in small volume container (e.g. ampoules, vials).

Characteristics

It adopts high voltage discharge leak testing technology to inspect leakproofness after sealing, used for closed container made of insulating material. If there is pin hole or crack on container, high voltage current will enter solution through it, produce different current value from qualified containers, and will be detected.
This machine adopts Truking proprietary technology,it can run independently, or be connected with automatic inspection machine as a compact line.
It adopts servo drive system, has reliable and stable running, high automation degree and high inspection precision, fully meets inspection requirement stipulated in Pharmacopoeia.

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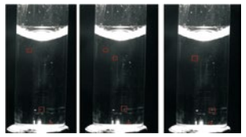
Detection Range

Automatic inspection

Visible foreign particles

- Visible foreign particles

  Insoluble material like glass,fiber,hair,black block,white block,color spot, etc.

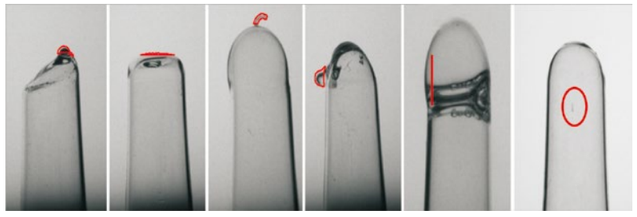


- Detection of static foreign particle

  Glass stick on the wall or bottom of bottle

- Exterior appearance detecting
- Visible foreign particles

  Bottle top defect, e.g. sealing tail,flat head,steep head,carbonized head,crack,bubble head, etc. main defect on
  oral liuquid bottle and vials after capping.

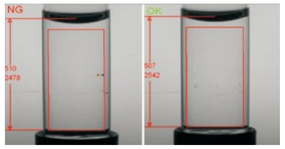


- Extended detecting

  Bottle crack,bottle body abnormal,bottle neck with sand hole, etc.

Visible foreign particles

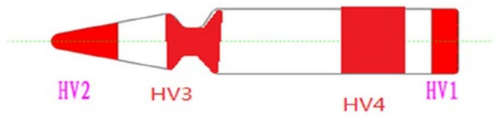
- Detection for crack of glass bottle



- Detection for attached particle on freeze-dry block surface
- Chalking of freeze-dry block
- Slope of freeze-dry block
- Particle on side surfac
- Unqualified bottle bottom

Automatic Leak test

- Standard configuration: 2 detecting stations to detect container bottom and top;
- Optional Configuration: 2 detecting stations to detect container neck and part of container body.



HV1--bottle detection range HV2--bottle cap detection range

HV3--bottleneck detection range HV4--bottle detection range

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Product Table

No.	Product	Model	Suitable Size	Output	Remark
Ampoule Automatic Inspection Machine					
1	Ampoule Automatic Inspection Machine	AJDZ60	1～20ml ampoule (Max.bottle body Φ18.4mm)	100-400pcs/min	
2		AJDZ48A	1～20ml ampoule (Max.bottle body Φ22mm)	200-400pcs/min	adopts servo swing arm sorting outfeed structure
3		AJDZ48B	1-20ml ampoule (Max.bottle body Φ22mm)	200-400pcs/min	Unqualified products are divided into two output trays: outlook and filling volume, particle Qualified products are sent to two trays, can be automatically switched, which lower collection labor intensity. It adopts vacuum negative pressure sorting outfeed structure.
4		AJDZ48C	1-20ml ampoule (Max.bottle body Φ22mm)	200-400pcs/min	Qualified product tray and unqualified product tray form a 90-degree angle, not easy to confuse It adopts vacuum negative pressure sorting outfeed structure.
5		AJDZ80	(Max.bottle body Φ22mm) 1-20ml ampoule	300-600pcs/min	adopts vacuum negative pressure sorting outfeed structure
6		AJDZ80B	1-20ml ampoule (Max.bottle body Φ22mm)	300-600pcs/min	Unqualified products are divided into two output trays: outlook and filling volume, particle Qualified products are sent to two trays, can be automatically switched, which lower collection labor intensity. It adopts vacuum negative pressure sorting outfeed structure
Vial Automatic Inspection Machine					
1	Automatic Inspection Machine (for vial) (Max.bottle body Φ22mm)	KJDZ48A	2-10ml vial (Max.bottle body Φ22mm)	200-400pcs/min	adopts servo swing arm sorting outfeed structure
2	Automatic Inspection Machine (for vial injection product and lyophilization product)	KJDZ48B	2-10ml vial (Max.bottle body Φ22mm)	200-400pcs/min	It increases bottom detection station at infeed starwheel, and capping inspection station at inspection tray, total 5 inspection stations. It adopts vacuum negative pressure sorting outfeed structure
3		KJDZ32A	2-50ml vial (Max.bottle body Φ42.5mm)	120-250pcs/min	It adopts servo swing arm sorting outfeed structure, others are same as KJDZ48B
4		KJDZ40	2-100ml vial (Max.bottle body Φ51.6mm)	120—350pcs/min	adopts vacuum negative pressure sorting outfeed structure
5	Automatic Inspection Machine (for vial injection product)	KJDZ80B	2～10ml vial (Max.bottle body Φ22mm)	300—600pcs/min	same as AJDZ80B
Oral Liquid Bottle Automatic Inspection Machine					
1	Automatic Inspection Machine	YJDZ48A	10-20ml oral liquid bottle (Max.bottle body Φ22mm)	100—300pcs/min	It adopts servo swing arm sorting outfeed structure
2		YJDZ40	20～50mloral liquid bottle (Max.bottle body Φ51.6mm)	100—200pcs/min	adopts vacuum negative pressure sorting outfeed structure
3		YJDZ80	10～20mloral liquid bottle (Max.bottle body Φ22mm)	100—450pcs/min	adopts vacuum negative pressure sorting outfeed structure
General Automatic Inspection Machine					
1	Automatic Inspection Machine	AKJDZ48B	Max.bottle body Φ22mm	200—400pcs/min	same as AJDZ48B
2		AKJDZ60B AKJDZ60C	Max.bottle body Φ32mm	200—450pcs/min	same as AKJDZ40B
3		AKJDZ36B AKJDZ36C	Max.bottle body Φ36mm	150—300pcs/min	same as AJDZ48B。
4		AKJDZ40B AKJDZ40C	Max.bottle body Φ51.6mm	100—350pcs/min	same as AJDZ80B。
5	Table type inspection machine(Semi-automatic single head inspection)	JDB			To detect and validate particle in bottle. It is suitable for ampoule, vial and oral liquid bottle
Note:	① For above models, last letter is “A”, means adopting servo swing arm sorting outfeed structure, has two outfeed trays:qualified products and unqualified products ②For above models, last letter is “B”, means adopting vacuum negative pressure sorting outfeed structure, has two outfeed trays for unqualified products: outlook and filling volume, particle, and one outfeed tray for qualified products ③For above models, last letter is “C”, means adopting vacuum negative pressure sorting outfeed structure, has two outfeed trays:qualified products and unqualified products ④General Automatic Inspection Machine is suitable for inspection of ampoule, vail injection, vial lyophilization and oral liquid bottle, is equipped with two detection and control programs, two sets of size parts, adopts vacuum negative pressure sorting outfeed structure				
Automatic Inspection & Leak Test Machine					
1	Automatic Inspection & Leak Test Machine	AJL400	1-20ml ampoule (Max.bottle body Φ22mm)	200—400pcs/min	ampoule inspection and leak test
2		KJL400	2-10ml vial (Max.bottle body Φ22mm)	200—400pcs/min	vial inspection and leak test
3		AJL600	1-20ml ampoule, 2-10ml vial (Max.bottle body Φ22mm)	300—600pcs/min	ampoule or vial inspection and leak test

Note: In above table, output is reverse to specification. That means smaller specification, larger output. The exactly details shall be subject to the quotation file.

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KLXF Series Vial (Powder) Compact Line
for Washing, Sterilizing & Drying, Filling & Stoppering, Sealing

Main technical parameter

Model	Suitable sizes	Output	Filling mode	Power	Net weight	Overall dimensions
KLXF5～100-A	5-100ml(vial)	1000-7200pcs/h	Auger type	76kw	8000kg	10000×2600×2340mm
KLXF5～100-B	5-30ml(vial)	6000-18000pcs/h	Auger type	90kw（68kw）	9000kg	11000×2600×2340mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

Main application

This line is composed of KQCL series vertical ultrasonic washing machine, KSZ series sterilizing & drying tunnel, KFGB(KFGC,KFGS) series vial powder filling & Stoppering machine, ZG series capping machine. Each machine can run independently, or be connected as a compact line. It can finish processing procedures such as: water spraying, ultrasonic washing, clamping & overturning vials by manipulator, water flushing(internal and external), air flushing(internal and external), pre-heating, drying & sterilizing, depyrogenation, cooling, vial orienting , filling, stoppers conveying, stoppering, caps conveying, capping and so on. It is mainly used for production of sterile powder in pharmaceutical factories.

Characteristics

Vertical ultrasonic washing machine adopts ultrasonic washing and alternant jetting water and airflow. It is the most popular washing equipment with highest clarity in the world. In whole washing process, three washing mediums adopt independent needles, each group of needles only flush one washing medium, which avoids cross contamination.

Sterilizing & drying tunnel adopts the principle of laminar flow and hot air high temperature sterilization process, which can make containers finishing aseptic production from pre-heating, drying, sterilizing to cooling. It is the most popular sterilizing & drying equipment with best sterilizing effect. It has good heat distribution and depyrogenation effect.

Vial powder filling & Stoppering machine adopts screw filling, linear continuous stopper taking and rotary stopper Stoppering, which has high filling precision and good adaptability.

Capping machine adopts single knife capping method. There is fine-tuning on top, bottom and circle direction. It has high capping qualified rate and good adaptability.

It adopts PLC control with HMI operation, which can control the whole line running or independent machine. It ensures normal running of the compact line with high automation, less operator and low labor intensity.

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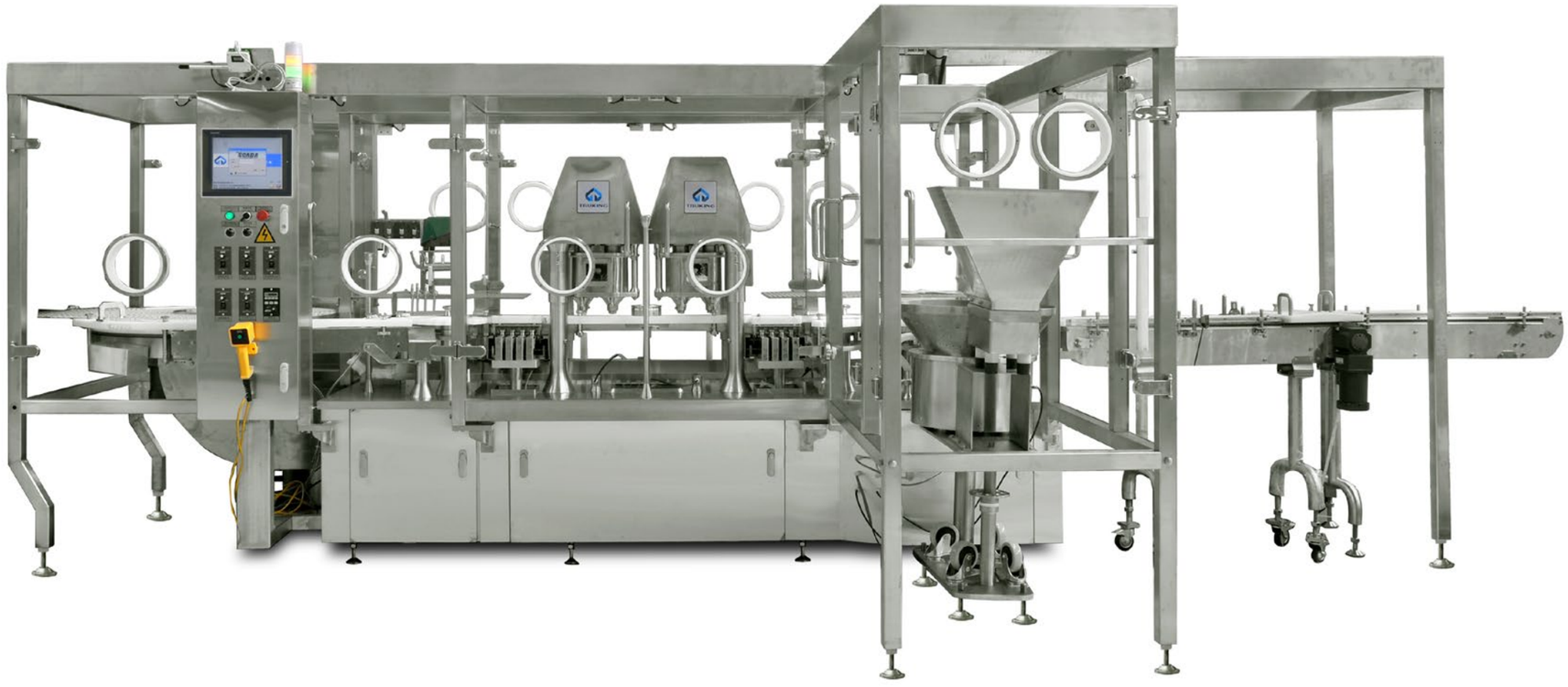
KFGB \ KFGC Series Powder Auger Filling & Stoppering Machine



Main application

It mainly used for sterile powder filling & stoppering of vial in the pharmaceutical industry.

Characteristics

This machine adopts servo motor to control filling and rotary plugging movement. It can finish procedures such as vial infeeding, conveying, filling, stopper orienting and stoppering automatically.
KFGB Series powder auger filling & stoppering machine adopts the starwheel conveying, locating filling patent technology with high precision and easy operation.
KFGC Series powder auger filling & stoppering machine adopts vertical synchronous belt linear conveying system, locating filling patent technology with high precision and easy operation. The high configuration of this machine adopts 100% weighing system which is the latest technology at present with high automatization, and is fully accord with the international standards including EU cGMP and US FDA.

Main technical parameter

Model	Suitable sizes	Output	Filling range	Filling heads	Conveying structure	Power	Net weight	Overall dimensions
KFGB2	5～100ml(vial)	1000-7200pcs/h	0.2～25g	2	Starwheel	5kw	1000kg	3100mm×1590mm×1900mm
KFGB4	5～30ml(vial)	6000-15600pcs/h	0.2～5g	4	Starwheel	10kw	3000kg	3500mm×2800mm×1950mm
KFGC2	5～100ml(vial)	1000-7200pcs/h	0.2～25g	2	Vertical synchronous belt	10kw	3000kg	4285mm×1404mm×1950mm
KFGC4	5～30ml(vial)	6000-15600pcs/h	0.2～5g	4	Vertical synchronous belt	10kw	3000kg	4285mm×1404mm×1950mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output, testing with glucose. For details, please take the reference of quotation.

KSLX Series Cartridge Compact Line for Washing, Sterilizing&Drying, Filling&Sealing

Main technical parameter

Model	Suitable sizes	Output	Power	Net weight	Overall dimensions
KSLX1～10	1-10ml(cartridge)	1000-6000pcs/h	71kw	6900kg	8550×2650×2400mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

Main application

This line is composed of DQCL series vertical ultrasonic washing machine, KSZ series sterilizing & drying tunnel, KSGF series cartridge filling & sealing machine. Each machine can run independently, or to be connected as a compact line. It can finish processing procedures such as: water spraying, ultrasonic washing, clamping cartridges by manipulator, water flushing(internal and external), air flushing(internal and external), silicone oil sprinking (internal), pre-heating, drying & sterilizing, depyrogenation, cooling, clamping with clamping insert, stopper collating, bottom plug adding, first filling, second filling, residual liquor suction by vacuum pump, cap collating, capping, unqualified bottles rejection and etc. It is mainly used for production of cartridge bottle in pharmaceutical factories.

Characteristics

Vertical ultrasonic washing machine adopts ultrasonic washing and separate alternant jetting water, airflow and silicone oil. It is the most popular washing equipment with highest clarity in the world. In whole washing process, four washing mediums adopt independent needles, each group of needles only flush one washing medium, which avoids cross contamination.

Sterilizing & drying tunnel adopts the principle of laminar flow and hot air high temperature sterilization process, which can make containers finishing aseptic production from pre-heating, drying, sterilizing to cooling. It is the most popular sterilizing & drying equipment with best sterilizing effect. It has good heat distribution and depyrogenation effect.

Cartridge filling & sealing machine adopts the following advanced technology: bottle vibration infeed, starwheel conveying , fiber photoelectric detecting, clamping with clamping block, bottom Stoppering, two times of filling, residual liquor suction by vacuum pump, capping, unqualified bottles rejection and etc. It has characteristics of high automation, high centering precision, high pass rate of bottom stopper stoppering, filling and sealing.

It adopts PLC control with HMI operation, which can control the whole line running or independent machine. It ensures normal running of the compact line with high automation, less operator and low labor intensity.

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DQCL Series Vertical Ultrasonic Washing Machine

Main application

This machine is mainly used for washing of cartridge bottles in pharmaceutical factories; it also can be used for washing other glass containers.

Characteristics

This machine uses vertical gyration structure. It adopts the principle of ultrasonic cleaning and alternant jetting water, airflow and silicone oil to clean and siliconization the containers one by one. Circulation water, compressed air, WFI and silicone oil adopt independent needles which are inserted into cartridge to flush, no cross contamination, no water and air loss, energy saving, and good washing effect. It can observe whole washing process, and is convenient for operation and maintenance.

Main technical parameter

Model	Suitable sizes	Output	Water consumption	Air consumption	Power	Net weight	Overall dimensions
DQCL20/3	1-10ml (cartridge)	6000-17000 pcs/h	0.2-0.3MPa 0.6m³/h	0.6MPa 35m³/h	15.7kw	2200kg	2400×2200×1620mm
DQCL20/2		6000-11000 pcs/h	0.2-0.3MPa 0.5m³/h	0.6MPa 30m³/h		1900kg	2400×2200×1620mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

KSZ Series Sterilizing & Drying Tunnel

Main application

This machine is mainly used for sterilizing, drying and depyrogenation of cartridge and other glass containers in pharmaceutical factories.

Characteristics

The tunnel is divided into three zones: pre-heating zone, sterilizing zone and cooling zone. It adopts the principle of laminar flow and hot air high temperature sterilization process to realize containers' sterilization and depyrogenation; adopts core patent technologies such as negative pressure sealing and air flow dividing, and has good heat distribution and depyrogenation effect.

Main technical parameter

Model	Suitable sizes	Output	Effective width of conveyor belt	Power	Net weight	Overall dimensions
KSZ620/43-E	1-10ml (cartridge)	12000-54000 pcs/h	600mm	47.55kw	3200kg	2760×1565×2450mm
KSZ420/20		6600-29000 pcs/h	400mm	33.17kw	2800kg	2360×1465×2350mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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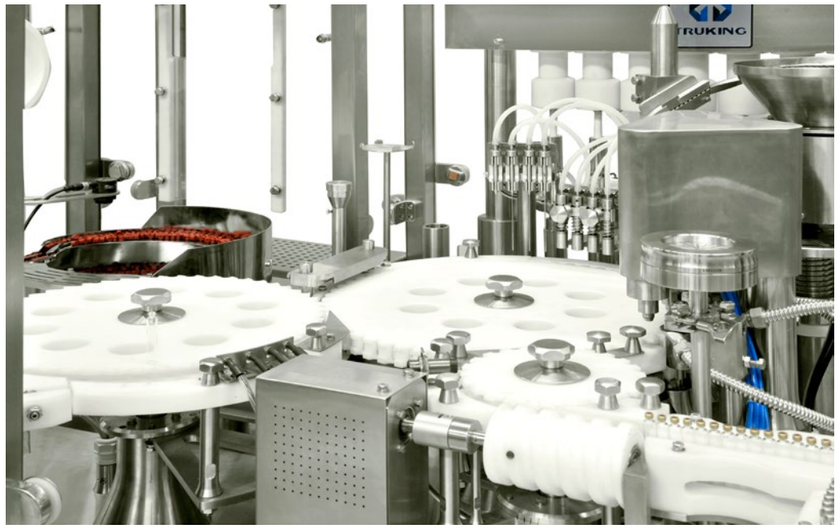
KSGF Series Cartridge Filling & Sealing Machine



Main application

It is mainly used for filling and sealing for cartridge bottles in pharmaceutical factories.

Characteristics

This machine adopts the following procedure: Vibration cartridge infeed, starwheel intermittent transfer with vacuum, stopper collating, bottom stopper Stoppering, first filling, second filling, residual liquor sucking by vacuum, cap collating, sealing, unqualified bottles rejection and etc. This machine all adopts servo motor driven and photoelectric integrate control with high running precision and automation.

Main technical parameter

Model	Suitable sizes	Output	Stoppering, Filling heads	Capping heads	Power	Net weight	Overall dimensions
KSGF4B	1-10ml (cartridge)	1000-48000 pcs/h	4	4	16kw	1500kg	2322×1548×2150mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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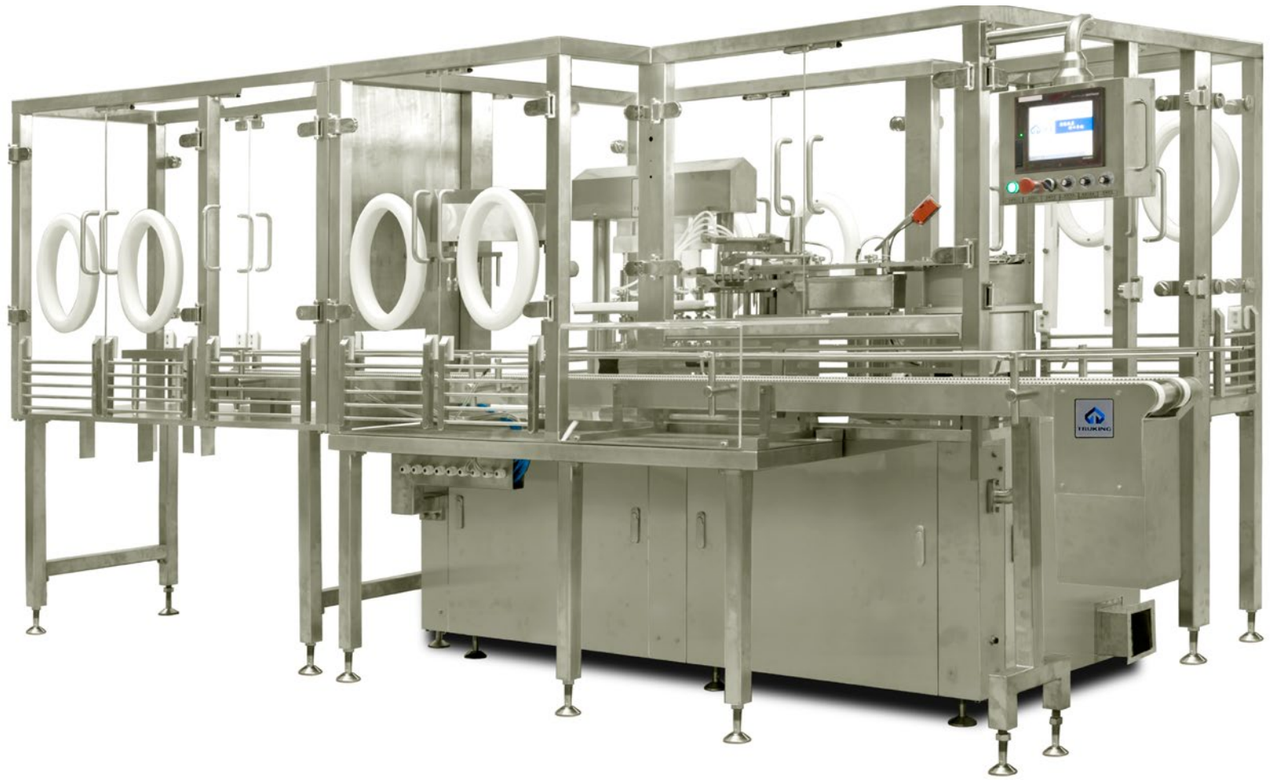
SFS Series Pre-filled Syringe Filling & Sealing Machine



Main technical parameter

Model	Suitable sizes	Output	between rows and column in honeycomb holder	syringes per honeycomb	Stoppering, Filling heads	Power	Net weight	Overall dimensions
SFS5	0.5-20ml syringe	1000-9000 pcs/h	19.05×16.5mm	100（10X10）	5	10kw	2000kg	4250×2110×1900mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

Main application

Mainly used for disposable syringe's filling and sealing in honeycomb holder of pharmaceutical factory.

Characteristics

This machine adopts servo motor control system to accomplish the process of honeycomb holders conveying, filling, and stoppers conveying, stoppering, holders outputting etc. It is mechatronics control, stable performance and high automatization.
Adopt combined method of servo motor system and cylinder to take out and put back the syringe from honeycomb holder automatically.
Adopt rotary piston ceramics pumps or metal pumps with servo motor control, which is easily adjustable and high filling accuracy.
The detection systems are provided in filling station, stopper conveying station, and which can real time detect the position of filling needles, stopper conveying status and position of stopper pusher.
No friction between conveyor and medicine contacting side of stopper during stopper transferring under protection of LAF, which can avoid the risk of particle generating and contamination
Main transmission parts adopt servo motor control; they are under the machine table with high transmission accuracy and position precision, and can also avoid contamination.
Based on all kinds of advanced technology in TRUKING, together with the modern filling principle, we designed and developed this sterile prefilled syringe filling and sealing machine. There are options for ORABs, CIP&SIP for filling system. The high configuration of this method can fully meet EU cGMP and FDA standard.

YLX Series Oral Liquid Compact Line
for Washing,Sterilizing & Drying,Filling & Capping

Main technical parameter

Model	Suitable sizes	Output	Power (Including normal working consumption)	Net weight	Overall dimensions
YLX5～25-C	5-25ml (oral liquid)	6000-24000 pcs/h	71.45KW(38kw)	7700kg	9400×2600×2340mm
YLX5～25-B		6000-18000 pcs/h	64.5KW(38kw)	6000kg	8500×2410×1850mm
YLX5～25-A		6000-12000 pcs/h	64.5KW(38kw)	6000kg	8500×2410×1850mm

Note: In above table, output is reverse to specification. That means smaller specification,larger output.

Main application

This line is composed of YQCL series vertical washing machine, KSZ series far infrared sterilizing & drying tunnel, YGZ series filling & capping machine. It is divided into three working zones: washing, drying & sterilizing, filling and sealing. Each machine can function independently, or be connected as a compact line. It could finish processing procedures such as: water sprinkling, ultrasonic washing, clamping and overturning bottles by manipulator, water flushing(interior and exterior), air flushing(interior and exterior), preheating, drying & sterilizing, cooling, filling, caps orienting, capping and and so on. It is mainly used for production of oral liquid bottles and other small volume bottles in pharmaceutical factories.

Characteristics

Vertical ultrasonic washing machine adopts ultrasonic washing and washing by alternant jetting water and airflow. It is the most popular and with highest clarity washing equipment in the world. In whole washing process, three washing mediums adopt independent needles, each group of needle only flush one washing medium, avoids cross contamination, which meets new version GMP requirement .

The tunnel adopts hot air laminar flow principle and high temperature sterilization process to realize containers' dry sterilization and eliminating pyrogen. Far infrared sterilizing & drying tunnel adopts.Far infrared sterilizing & drying tunnel adopts heat radiation sterilizing technics by far infrared quartz tube, has good sterilization effect.

Liquid filling & stoppering machine adopts big starwheel to input bottles and locate, filling needles move to-and-fro for tracking filling. It adopts single knife follow capping principle or three knives capping principle. It has few bottles transferring times, high capping qualified rate and good adaptability.

It adopts advanced PLC control HMI operation which can not only control the whole line but also control each single machine. It guarantees stable operation of the whole compact line, with high automation degree, few operators and low labor intensity.

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YQCL Series Vertical Ultrasonic Washing Machine

Main application

This machine is mainly used for washing of oral liquid bottles in pharmaceutical factories, it also can be used for washing glass containers such as ampoules and vials.

Working principle

This machine use vertical gyration structure. It adopts the way of clamping and overturning bottles with manipulator and the principle of ultrasonic cleaning and washing by alternant jetting water and airflow to clean the containers one by one. The major characteristics: circulation water, compressed air and WFI adopt independent needles. Needles are inserted into bottle to flush,no cross contamination, no water and air loss, saves energy, and has good washing effect. It can observe whole washing process through eyes, and is convenient foe operation and maintenance.

Main technical parameter

Model	Suitable sizes	Output	Water consumption	Air consumption	Power	Net weight	Overall dimensions
YQCL28/5	5-20ml(oral liquid)	14000-39000 pcs/h	0.2-0.3MPa 1.2m^3/h	0.6MPa 60m^3/h	25kw	3000kg	2530×2850×1620mm
YQCL28/4	5-20ml (oral liquid)	10000-32000 pcs/h	0.2-0.3MPa 1.0m^3/h	0.6MPa 50m^3/h		2900kg	2530×2850×1620mm
YQCL28/3	5-30ml (oral liquid)	8000-23000 pcs/h	0.2-0.3MPa 0.9m^3/h	0.6MPa 45m^3/h		2800kg	2530×2850×1620mm
YQCL20/5	5-10ml (oral liquid)	10000-29000 pcs/h	0.2-0.3MPa 0.9m^3/h	0.6MPa 45m^3/h	15.7kw	2400kg	2400×2200×1620mm
YQCL20/4	5-20ml (oral liquid)	8000-23000 pcs/h	0.2-0.3MPa 0.8m^3/h	0.6MPa 40m^3/h		2400kg	2400×2200×1620mm
YQCL20/3	5-30ml (oral liquid)	6000-17000 pcs/h	0.2-0.3MPa 0.6m^3/h	0.6MPa 35m^3/h		2200kg	2400×2400×1620mm
YQCL20/2	5-30ml (oral liquid)	6000-11000 pcs/h	0.2-0.3MPa 0.6m^3/h	0.6MPa 30m^3/h		1900kg	2400×2400×1620mm

Note: In above table, output is reverse to specification. That means smaller specification,larger output.

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KSZ Series Drying and Sterilizing Tunnel

Main application

The tunnel is divided into three zones: preheating, drying & sterilizing and cooling zone. It adopts hot air laminar flow principle and high temperature sterilization process to dry and depyrogenate containers.

Characteristics

The tunnel is divided into three zones: preheating zoom,sterilizing and cooling zone. it adopts hot air laminar flow principle and high temperature sterilization process to realize containers' dry sterilization and eliminating pyrogen, adopts core patent technologies such as negative sealing and air flow dividing with good heat distribution and eliminating pyrogen effect.

Main technical parameter

Model	Sterilizing principle	Suitable sizes	Output	Effective width of conveyor belt	Power	Net weight	Overall dimensions
YSZ620/42-U	farin frared radiation	5-100ml (oral liquid)	300-18000 pcs/h	600mm	45kw	1580kg	3870×1200×1850mm
KSZ620/43B	hot air reccling laminar flow	5-100ml (oral liquid)	300-24000 pcs/h	600mm	54.3kw	3500kg	3680×1700×2400mm
KSZ620/43-E	hot air reccling laminar flow	5-100ml (oral liquid)	300-18000 pcs/h	600mm	47.55kw	3200kg	2760×1555×2410mm
KSZ420/20	hot air reccling laminar flow	5-100ml (oral liquid)	300-12000 pcs/h	400mm	24.88kw	2500kg	2360×1465×2350mm

Note: In above table, output is reverse to specification. That means smaller specification,larger output.

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YGZ16 / 25 Series Filling & Capping Machine

Main application

It is mainly used for filling and capping of oral liquid bottles and other small dose liquid bottles.

Characteristics

This machine adopts method of conveying bottles through big starwheel, to-and-fro tracking filling and soft rolling & pressing capping structure with single knife. It can automatically finish procedures suchas bottle orienting, bottles conveying, filling, cap orienting, capping etc. It adopts servo motor to drive filling, and can be equipped with glass pump, metal pump, ceramic pump or peristaltic pump as customer's request.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Capping heads	Power	Net weight	Overall dimensions
YGZ16/25	5-25ml (oral liquid)	6000-24000 pcs/h	16	25	4.145kw	1800kg	3300×2135×1850mm

Note1:Plexiglass support stand is not included for standard equipment.
Note2: In above table, output is reverse to specification. That means smaller specification,larger output.

YGZ15 / 16 Filling and Capping Machine

Main application

It is mainly used for filling and capping of oral liquid bottles and other small dose liquid bottles.

Characteristics

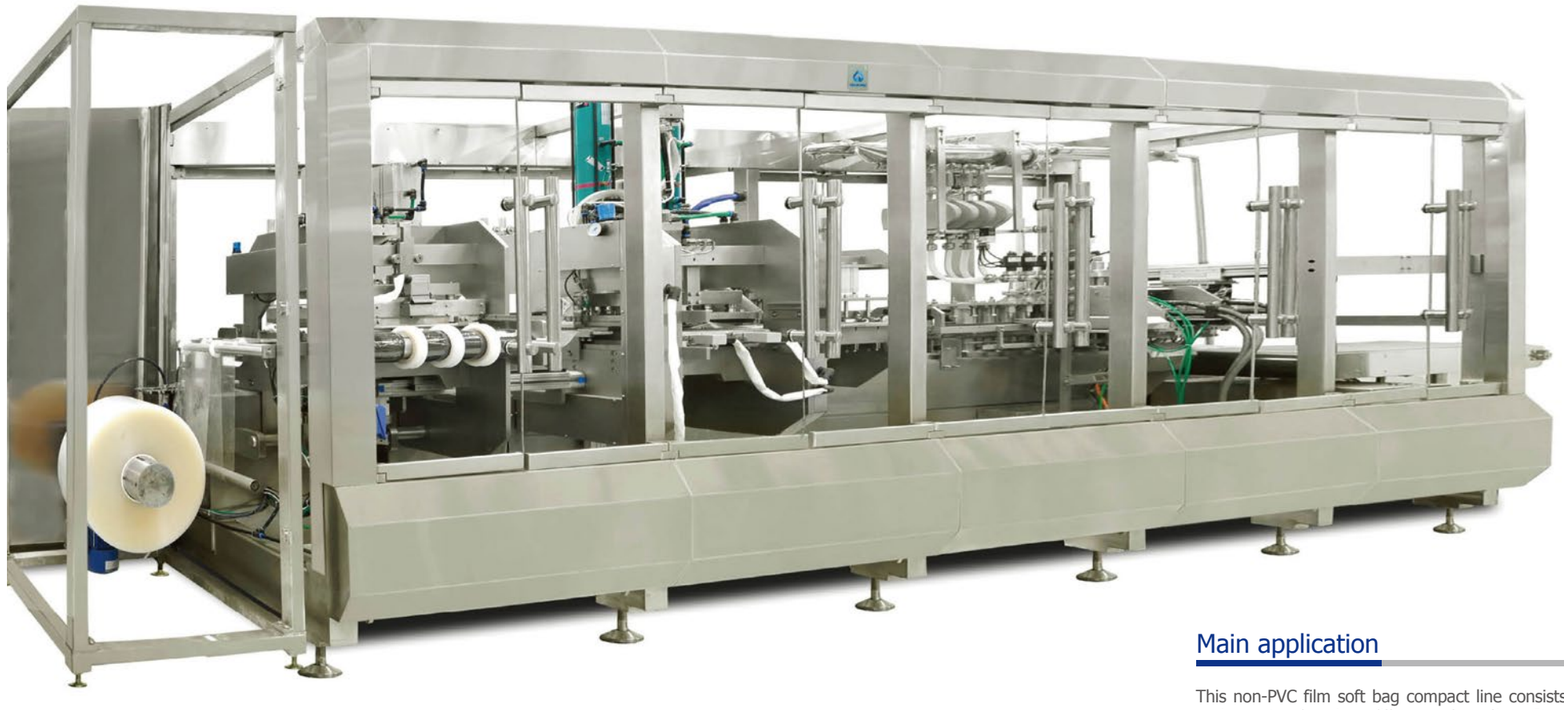
This machine adopts method of conveying bottles through big starwheel, to-and-fro tracking filling and three knives capping. It can automatically finish procedures such as bottle orienting, bottles conveying, filling, cap orienting, capping and etc. It can be equipped with glass pump, metal pump, ceramic pump or peristaltic pump as customer's request.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Capping heads	Power	Net weight	Overall dimensions
YGZ15/16	5-25ml (oral liquid)	6000-19200 pcs/h	15	16	3kw	1400kg	2650×1280×1780mm

Note1:Plexiglass support stand is not included for standard equipment.
Note2: In above table, output is reverse to specification. That means smaller specification,larger output.

SRD Series Non-PVC Film Soft Bag Infusion Compact Line



Main application

This non-PVC film soft bag compact line consists of three main parts: forming, filling and sealing. It can finish processing procedures such as: film infeeding, printing, port sorting, port pre-heating, film separating, bag forming, port welding, outline cutting, bag transferring, filling, heat sealing and outfeeding etc. It also can be connected with auxiliary equipments as a whole soft bag package compact line, such as port infeed machine, cap infeed machine, soft bag transferring machine, sterilization cabinet, bag loading and unloading machine, soft bag drying machine, leakage inspection machine, light inspection machine, package machine, seal machine and etc. It is suitable for 50ml—3000ml non-PVC film infusion soft bag production in pharmaceutical factories. In order to meet different requirements of customer, Truking have invented several series of non-PVC film infusion soft bag compact line with our own intellectual property, such as: SRD series, SRSD series (double hard tube soft bag), SRDF series (multi chamber soft bag)

Characteristics

This machine adopts linear layout, and the base adopts integrate table design which is convenient for operation, maintenance and cleaning. Bag forming and filling adopts one synchronous belt to convey, no intermediate links, which is simple structure and avoids bag transfer problem, reduces risk of insoluble particle contamination and influence to LAF system, avoids second contamination, and meets GMP requirement;
It has broad range of applicability, suitable for 50ml—3000ml infusion soft bag production but has few size parts which are easy to change;
It adopts the advanced PID temperature control that ensures the quality of bag sealing, and suits different brands of packaging material;
It adopts no medium wasting outline structure design, which can realize 100% film usage that minimizes production costs;
It adopts float joint to connect printing air cylinder, bag forming cylinder, and other parts, which makes the air cylinder longer life using, and ensures long running stability;
Forming mould adopts special high quality material, and adopts special heat treatment and surface coating process, which can make mould temperature more uniform and guarantee bag forming quality, the service life of mould is longer than other similar product;
It adopts mass flowmeter, high sensitivity aseptic valve and high speed PLC control to realize filling. It has advanced filling method and accurate measurement. CIP and SIP is easy to be realized on this line;
One to one port pre-heating and welding technology is applicable to various ports from different suppliers and ensures welding quality. It can control the leakage rate into 0.01%;
Most of the parts adopts servo control technology on the machine, it meet requirement of high speed and high precision. The servo motor drives filling head, cap sealing head and heating board directly, no need linear driver from the synchronous belt. It has simple structure and almost no need maintenance;
The communication method uses onsite profibus, optical cable transferring, combined with valve terminal, servo system, PLC and HMI control. All running parameters can be saved as a recipe for future use. Normal running and reliable performance of whole unit are insured by highly automatic system and advanced technology. The auxiliary remote control technology quickly realizes software update and maintenance;
This line has following characteristics: tight structure, small purification area, high production ability, good stability, very few wear parts, and its maintenance cost is the lowest comparing to similar product.

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SRD Series Non-PVC Film Soft Bag Infusion Compact Line

Main technical parameter

Model	SRD2	SRD4 /SRD4A	SRD6/SRD6A
Suitable product	Venous transfusion, dialysis fluid, flushing fluid, amino acid, antibiotic, blood product, lipid and so on		
Suitable packing film material	Non-PVC multilayer compound film		
Film Dimension	Standard film material with inner diameter:150mm, outer diameter less than 600mm		
Suitable port	All kinds of hull shape port, round port, odd shape port, soft port etc.		
Inked ribbon size	Standard colored tape with inner diameter: 76-78mm, outer diameter less than 140mm		
Bag Specification	50ml.100ml.250ml.500ml.1000ml.2000ml.3000ml.etc		
Bag width	130mm or 135mm(it can be made according to the customer's requirement)		
Filling liquid	No bubble liquid, liquid pressure: 0.1-0.4MPa		
Filling accuracy	50ml, 100ml±1.5%; 250ml±1%; 500ml, 1000ml±0.7%		
Room environment requirement	Temp.: 18℃—26℃; Average humidity: 45%—65%		
Compressed air	Pressure ≥0.6MPa, filtration precision: 5μm, dry, oil free compressed air		
Sterile compressed air	Pressure ≥0.6MPa, filtration precision: 0.22μm sterile air		
Printing method	heat foil printing (we can provide intelligence heat foil printing technology)		
Cooling water consumption	0.2-0.4 m^3/h, temperature less than 20℃.		
Nitrogen consumption	According to special requirement, we can use the 0.1MPa nitrogen to protect the solution, consumption: 2-6m^3/h		
Max. Output	2300 pcs/h	4200 pcs/h	5200 pcs/h
Filling head	2	4	6
Compressed air consumption	120m^3/h	180m^3/h	210m^3/h
Sterile air consumption	30m^3/h	60m^3/h	90m^3/h
Power	25kw	32/40kw	40kw
Overall Dimension(L×W×H)	4100X2420X2100mm	7500X2630X2100mm	8000X2630X2100mm
Net Weight	6000kg	7600/8800kg	8500kg

Note: In above table, output is reverse to bag size. Than that means smaller bag size, larger output. For details, please take the reference of quotation.

SRDF Series Non-PVC Double-Hard Tube Soft Bag Infusion Compact Line

Main technical parameter

Model	SRSD2	SRSD4
Suitable product	Venous transfusion, dialysis fluid, flushing fluid, amino acid, antibiotic, blood product, fats and so on	
Suitable packing film material	Non-PVC multilayer compound film	
Port	Inner diameter 6mm, Outer diameter 8mm, and other soft port.	
Bag forming method	Double-hard(single-seated or separated)	
Bag Specification	50ml, 100ml, 250ml, 500ml, 1000ml	
Bag width	100-135mm(it can be made according to the client requirement)	
Max. Speed	2000 pcs/h	4000 pcs/h
Filling head	2	4
Power	25kw	40kw
Overall Dimension(L×W×H)	5000×2600×2100mm	7500×2700×2100 mm
Net Weight	8000/6500kg	9600/8500kg

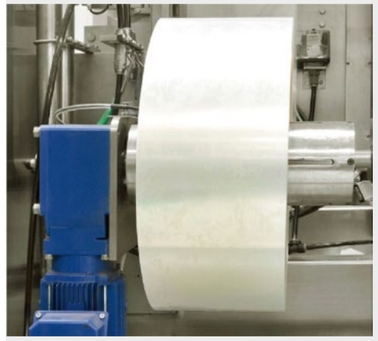
SRDF Series Non-PVC Film Double-chamber Soft Bag Infusion Compact Line

Main technical parameter

Model	SRD2/SD	SRD2/SY
Suitable product	multi-chamber infusion(liquid),double-chamber infusion (liquid and powder)and etc.	
Suitable packing film material	Non-PVC multilayer compound film	
Suitable port	All kinds of hull shape port, round port, odd shape port, soft port etc	
Bag Specification	Total volume less than 3000ml	
Powder filling specification	0.3g—10g	
Bag width	135mm (it can be made according to the client requirement)	
Filling liquid	No bubble liquid, liquid pressure: 0.1—0.4MPa	
Max. Speed	2000 pcs/h	3000pcs/h
Filling head	2	4
Power	40kw	45kw
Overall dimension(L X W X H)	9000X2650X2100mm	750X2650X2100mm 3200X1500X2000mm
Net Weight	8500kg	9000kg

Note: In above table, output is reverse to bag size. Than that means smaller bag size, larger output. For details, please take the reference of quotation.

SRD Series Non-PVC Film Soft Bag Infusion Compact Line



Film feeding station

It adopts advanced gas rising shaft roller to fix up film volume, easy to replace. The film volume is fixed by air shaft and can be replaced without tools which is convenient and labor saving.

Printing station

It adopts hot foil print technology that can accomplish many kinds of colors printing. Printing plate is typography, and the batch number, producing date, validity period are types. Simple tools is needed when replacing, it is very convenient. The printing temperature, time and pressure are all adjustable. It can adopt bar code printing technology according to user's request, meets traceability requirement.

Ports supply station

It adopts spiral oscillator to regulate ports, sterile air for infeeding, servo cylinder to separate, gas claw to grasp and transfer.

Ports pre-heating station

It adopts two times port pre-heating technology which can adjust temperature and time independently, increase adaptability to all kinds of packing material. It can avoid bad sealing phenomena caused by different thermal conduction between port and film during bag forming, reduces bag leakage rate.

Bag forming station

It adopts air suspension low friction and compact type film opening board, which can minimize damage to film while opening. It reduces the waste caused by producing particles during film opening.

It adopts integrate sealing forming mould with bag heat sealing forming and cutting forming in same station, which avoids the bag forming shape is influenced by the displacement. It guarantees consistency of bag shape. Port welding adopts floating flexible structure, which can finish port welding while bag forming, reduce bag leakage rate.

Forming mould adopts special high quality material, and adopts special heat treatment and surface coating process. It improves mould processing quality and extends mould service life.

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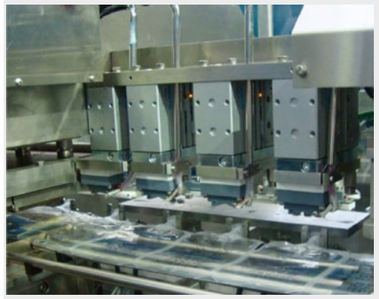
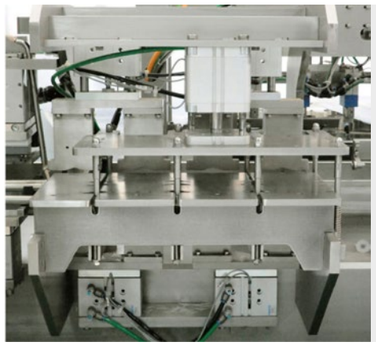
SRD Series Non-PVC Film Soft Bag Infusion Compact Line



Port welding station

It adopts independent one to one welding mould and temperature control, makes twice port welding and shaping, with larger adjustment range. It increases suitability for packing materials, prevents leakage at the port, ensures welding quality, and reduces leakage rate.



Outline cutting station

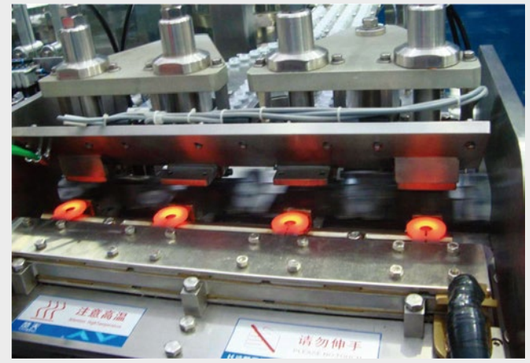
Simple and efficient outline cutting structure, reduces operators and intensity of labor, saves labor cost.

Filling station

It adopts filling technology of high quality mass flowmeter, pneumatic valves and high speed PLC. It measures exactly, with advanced filling method. Filling volume can be set through touch screen, is easy to adjust.
It is easy to operate, SIP and CIP is easily to be realized. It adopts the advanced servo motor to control up-down of filling heads, with mild movement, reduces medicine drop. The filling head is connected flexible, ensures the sealing quality of the port at filling station, prevents the hydrojet during filling.

Nitrogen charging sealing station

It adopts non-contact heat welding, which is good to guarantee welding quality, can effectively avoid other particles generated after welding.
Heating plate adopts special anti-impact patent structure, which can avoid damage of heating plate effectively, extend using life of heating plate.
It adopts advanced servo control system to directly control to and fro moving of heating piece and down pressing of cap, which has exact orientation, and can decrease malfunction of equipment.
According to special requirement, it can realize nitrogen charging before sealing to protect the product quality.



Outfeed station

After filling and sealing, bags are taken out from belt, and put on conveying belt to next station for sterilizing.

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SLX Serise Glass Infusion Bottle Compact line

Main technical parameter

Model	Suitable sizes	Output	Power	Net weight	Overall dimension
SLX50～500-D	50-500ml (glass infusion bottle)	3600-12000 pcs/h	49kw	10000kg	21500×2000×2135mm
SLX50～500-C	50-250ml (glass infusion bottle)	3600-12000 pcs/h	37kw	9000kg	21500×2000×2135mm
SLX50～500-B	50-500ml (glass infusion bottle)	3600-6000 pcs/h	26kw	10370kg	22250×2160×2135mm
SLX50～500-A		1200-3600 pcs/h	22kw	6720kg	17670×2160×1700mm

Note: In above table, output is reverse to bottle size. That means smaller bottle size, larger output. For details, please take the reference of quotation.

Main application

This line is consists ofvv several independent machines such as SLP Series bottle orienting machine, SWX Series exterior washing machine, SQC Series large infusion ultrasonic pre-washing machine, SQL Series infusion bottle vertical washing machine, (KSZ Series sterilizing & drying tunnel,) SGS Series gravity rotation filling & Stoppering machine or SGSC Series gravity rotation filling & plugging machine with vacuum and nitrogen charging, SZG Series large infusion capping machine, SDJR Series light inspection machine, DZT Series labeling machine or LTB Series sticker labeling machine etc. Each machine can run independently, or be connected as a compact line. It can finish processing procedures such as: bottle orienting, exterior washing, ultrasonic washing, circulation water flushing, WFI flushing, (pre-heating, drying & sterilizing, depyrogenation, cooling,) filling(Nitrogen charging), stopper orienting, stoppering, cap orienting, capping, light inspecting, printing, labeling and etc. It is mainly used for large volume bottle infusion production in pharmaceutical factories.

Characteristics

This compact line is in series connection mode, Washing, filling and sealing run continuously. It is separated in different cleaning level areas, bottle conveying machine doesn't enter different areas, so there is no cross-contamination. The compact line has good applicability; it can be used for production of all kinds of 50-500ml glass bottles. Few size parts need to be changed for different bottle size;

Washing machine adopts vertical structure, without cross contamination. It is easy to change size part, and have good washing effects. Needles are inserted into bottles to flush, which has good flushing effect and high clarity;

Filling & stoppering machine adopts constant pressure time-flowing diaphragm valve filling. It controls filling volume through setting filling time, which has high automation degree and filling precision, and can realize no-bottle-no-filling and CIP/SIP function;

Capping machine adopts patent technology of capping knives on neighboring capping heads interleaving each other, which highly reduces distance between capping heads and gyration radius of capping heads, slows down line speed of bottles, to improve stability and reliability of the machine.

It adopts PLC control HMI operation which not only control the whole line but also single machine. It guarantees normal operation of the whole compact line, with high automation, few operator and low labor intensity.

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SLP Serise Bottle Orienting Machine

Characteristics

This machine adopts large rotary tray rotating to feed bottles automatically with a very fine bottle feeding effect.

Main application

This machine is mainly used for feeding and conveying glass or plastic bottles in pharmaceutical factories.

Main technical parameter

Model	Suitable sizes	Output	Power	Net weight	Overall dimension
SLP1200	50-1000ml (glass or plastic bottle)	6000-18000 pcs/h	1.5KW	450kg	1240×1800×1100mm

Note: In above table, output is reverse to container size specification. That means smaller container size specification, larger output.For details, please take the reference of quotation.

SWX Series Exterior Washing Machine

Characteristics

This machine scrubs the bottle from different orientation with vertical shaft brush and multi-pipes water. It has high washing efficiency and high washing quality.

Main application

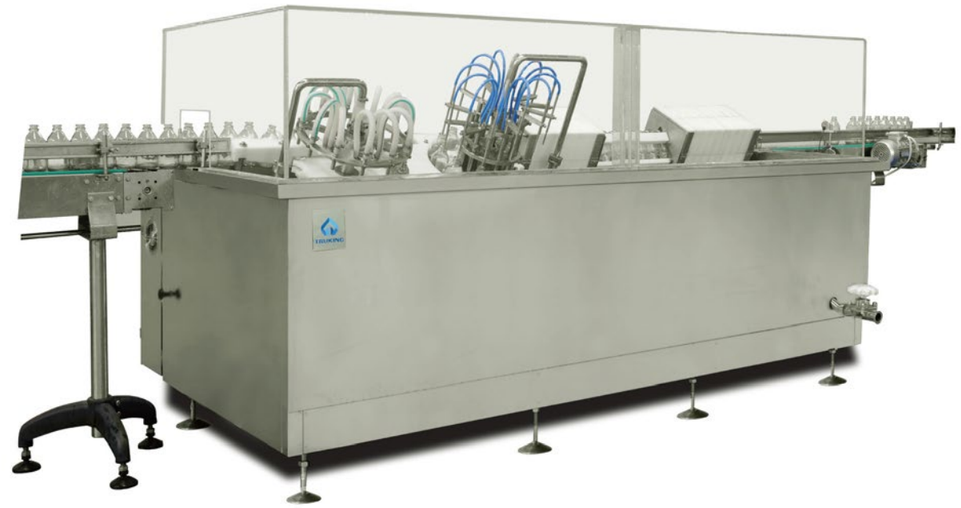
This machine is mainly used for external washing of glass bottles in pharmaceutical factories.

Main technical parameter

Model	Suitable sizes	Output	Power	Net weight	Overall dimension
SWX50-500C	50-500ml (glass or plastic bottle)	6000-12000 pcs/h	1.3kw	400kg	600×600×1700mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

SQC Series Large Infusion Ultrasonic Pre-washing Machine



Main application

It is mainly used for pre-washing of infusion glass bottles in pharmaceutical factories, also can be used for other glass containers.

Characteristics

This machine adopts ultrasonic washing principle to rough wash glass bottles. It can finish whole process from bottle feeding, water spraying, ultrasonic washing to output automatically.

Main technical parameter

Model	Suitable sizes	Output	consumption	Air consumption	Power	Net weight	Overall dimension
SQC30	50-250ml (glass bottle)	3600-12000 pcs/h	0.6m^3/h	30m^3/h	13.6kw	1100kg	2620×1480×1470mm
SQC44	50-500ml (glass bottle)	3000-12000 pcs/h	0.6m^3/h	50m^3/h	15.6kw	1500kg	2685×1400×1400mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output.For details, please take the reference of quotation.

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SQL Serise Infusion Bottle Vertical Washing Machine

Main application

This machine is mainly used for washing infusion glass bottles in pharmaceutical factories. It also can be used for washing other glass containers such as vials and oral liquid bottles.

Characteristic

This machine use vertical gyration structure. It adopts the principle of washing by alternant jetting water and airflow to clean the infusion bottles one by one. The major characteristics: circulation water, compressed air and WFI adopt independent needles which are inserted into ampoule to flush, no cross contamination, no water and air loss, energy saving, and has good washing effect. It can observe whole washing process, and is convenient for operation and maintenance.

Main technical parameter

Model	Suitable sizes	Output	Water consumption	Air consumption	Power	Net weight	Overall dimension
SQL12/1	50-100ml (glass bottle)	1000-3000 pcs/h	0.2-0.3mpa 0.6m^3/h	0.6mpa 30m^3/h	5kw	1800kg	1820×1850×1420mm
SQL20/1	50-500ml (glass bottle)	3600-6000 pcs/h	0.2-0.3Mpa 0.6m^3/h	0.6Mpa 35m^3/h	5kw	1900kg	1975×1910×1300mm
SQL20/2	50-100ml (vial)	3600-12000 pcs/h	0.2-0.3Mpa 0.8m^3/h	0.6Mpa 45m^3/h	5kw	1900kg	1975×1910×1300mm
SQL28/1	50-500ml (glass bottle)	3000-7000 pcs/h	0.2-0.3Mpa 1.4m^3/h	0.6Mpa 50m^3/h	5kw	3000kg	2450×2400×1620mm
SQL28/2	50-250ml (glass bottle)	6000-14000 pcs/h	0.2-0.3Mpa 2.0m^3/h	0.6Mpa 60m^3/h	5kw	3000kg	2450×2400×1620mm
SQL28/21	50-250ml (glass bottle)	3000-14000 pcs/h	0.2-0.3Mpa 2.0m^3/h	0.6Mpa 60m^3/h	5kw	3000kg	2450×2400×1620mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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KSZ Series Sterilizing & Drying Tunnel

Main application

This machine is mainly used for sterilization and drying, depyrogenation of glass bottles and other glass containers such as vials and oral liquid bottles in pharmaceutical factories.

Characteristics

The tunnel is divided into three zones: pre-heating zone, sterilizing zone and cooling zone. It adopts the principle of laminar flow and hot air high temperature sterilization process to realize containers' sterilization and depyrogenation; adopts core patent technologies such as negative pressure sealing and air flow dividing, and has good heat distribution and depyrogenation effect.

Main technical parameter

Model	Suitable sizes	Output	Effective width of conveyor belt	Power	Net weight	Overall dimension
KSZ620/43B	50-500ml	360-1080 pcs/h	600mm	54.3kw	3800kg	3680×1700×2410mm
KSZ620/60-C		480-2100 pcs/h	600mm	73.4kw	4500kg	5075×1555×2410mm
KSZ620/75-C		660-2800 pcs/h	600mm	91kw	5000kg	5705×1555×2410mm
KSZ920/100A	50-1000ml	600-4200 pcs/h	900mm	125.07kw	6500kg	5730×2050×2400mm
KSZ920/120A		720-5100 pcs/h	900mm	145.67kw	8500kg	6935×2050×2400mm
KSZ920/140A		900-6500 pcs/h	900mm	180.67kw	10000kg	8565×2050×2400mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output.For details, please take the reference of quotation.

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SGS Series Gravity Rotation Filling & Stoppering Machine

Main application

This machine is mainly used for filling and stoppering of infusion glass bottles in pharmaceutical factories, and also can be used for other glass containers.

Characteristics

This machine adopts pneumatic diaphragm valve for filling and rotary tracing stoppering. It adopts constant pressure time-flowing filling. It controls filling volume through setting filling time, which has high automation degree and filling precision, and can realize no-bottle-no-filling and CIP/SIP function.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Stoppering heads	Power	Net weight	Overall dimensions
SGS3216	50-500ml (glass bottle)	6000-18000 pcs/h	32	32	5kw	2500kg	3131×2541×2200mm
SGS2016		3600-12000 pcs/h	20	16	4.5kw	2000kg	3205×2132×2200mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

SGSC Series Gravity Rotary Filling & Stoppering Machine with Vacuum and Nitrogen Charging

Main application

This machine is mainly used for filling and stoppering of glass bottle medicines such as Amino Acid or Fat Emulsion in pharmaceutical factories, and also can be used for filling and plugging with requirement of low oxygen content after stoppering.

Characteristics

This machine adopts structure of constant pressure flowing diaphragm valve filling or vacuuming and nitrogen charging then filling, and vacuuming and nitrogen charging then stoppering. In stoppering station, it adopts multiple pulsating vacuum and nitrogen charging structure to replace air in bottles, reduces oxygen in bottle, protect medicine quality effectively. It can also realize no-bottle-no-filling, CIP/SIP functions.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Plugging heads	Power	Net weight	Overall dimensions
SGSC2020	50-1000ml (glass or plastic bottle)	4800-9600 pcs/h	20	20	5.9kw	1500kg	2600×1670×2150mm
SGSC1212		2400-5400 pcs/h	12	12	5kw	1200kg	2020×2000×2260mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

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SZG Series Large Infusion Bottle Capping Machine

Main application

This machine is mainly used for capping of infusion glass bottles in pharmaceutical factories, and also can be used for other glass containers.

Characteristics

This machine adopts continuous rotating sealing method. It can finish procedures such as bottle conveying, cap conveying, capping to output automatically. It adopts advanced capping technology, first pressing then capping, corrects cap hanging tolerance. It has smooth and nice-looking sealing, high qualified rate.

Main technical parameter

Model	Suitable sizes	Output	Cap pressing heads	Capping heads	Power	Net weight	Overall dimension
SZG16	50-500ml (glass bottle)	6000-18000 pcs/h	12	16	5.9kw	1200kg	2800×1400×2240mm
SZG12		6000-15000 pcs/h	9	12	5.9kw	1200kg	2800×1400×2240mm
SZG8		3600-7200 pcs/h	8	8	4.8kw	1000kg	2530×1200×2240mm
SZG1		1200-3600 pcs/h	0	1	3.3kw	500kg	2040×990×2330mm

`Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

SSS50~500 Large Infusion Bottle Feeding Machine

Main application

Mainly used for feeding glass bottles into the sterilizing trolley after being sealed in pharmaceutical factories.

Characteristics

Adopt feeding bottles with cylinder to push the glass bottles into the trolley from bottle storing platform to finish the bottle feeding working procedure.

Main technical parameter

Model	Suitable sizes	Output	Power	Net weight	Overall dimension
SSS50～500/200	50-500ml (glass bottle)	5000-12000 pcs/h	2.25kw	1000kg	3600×1900×hmm

Note: In above table, output is reverse to specification. That means smaller the specification, larger the output will be. For more details. please take the reference of quotation.

SSX50~500 Large Infusion Bottle Outputting Machine

Main application

Mainly used for outputting the glass bottles out of the sterilizing trolley after being sterilized in pharmaceutical factories.

Characteristics

Adopt feeding bottles with cylinder to push the glass bottles out of the trolley to bottle storing platform to finish the bottle outputting working procedure.

Main technical paramete

Model	Suitable sizes	Output	Power	Net weight	Overall dimension
SSX50～500/200	50-500ml (glass bottle)	5000-12000 pcs/h	2.25kw	1000kg	5100×1300×hmm

Note: In above table, output is reverse to specification. That means smaller the specification, larger the output will be. For more details. please take the reference of quotation.

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SGS Series Peristaltic Pump Filling & Stoppering Machine

Main application

This machine is mainly used for filling and stoppering of infusion glass bottles in pharmaceutical factories, and also can be used for other glass containers.

Characteristics

This machine adopts peristaltic pump filling and rotary tracing stoppering. It can finish procedures such as bottle conveying, orientation, filling, stopper orienting, stoppering and so on. It presses silicon pipe through rotor in peristaltic pump to realize filling, has high automation degree and high filling precision.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Plugging heads	Power	Net weight	Overall dimension
SGS10	50-500ml (glass or plastic bottle)	600-9000 pcs/h	10	16	3.37kw	1200kg	3365×1200×1400mm
SGS8		600-7200 pcs/h	8	16	3.37kw	1000kg	3000×1200×1400mm
SGS6		600-4800 pcs/h	6	16	3.37kw	950kg	2580×1030×1400mm
SGS4		600-3000 pcs/h	4	16	3.37kw	950kg	2265×1030×1400mm
SGS2		600-1200 pcs/h	2	16	3.37kw	900kg	2565×1200×1400mm

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SG Series Peristaltic Pump Filling Machine

Main application

This machine is mainly used for filling of glass bottles or plastic bottles in pharmaceutical factories.

Characteristics

This machine adopts peristaltic pump filling. It can finish procedures such as bottle conveying, orientation, filling and so on. It presses silicon pipe through rotor in peristaltic pump to realize filling, has high automation degree and high filling precision.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Air consumption	Power	Net weight	Overall dimension
SG8	50-500ml (glass or plastic bottle)	600-7200 pcs/h	8	0.6MPa 6m³/h	3.5KW	600kg	1000×960×1400mm
SG5		600-4800 pcs/h	5		2.3KW	1000kg	
SG3		600-3000 pcs/h	3		1.5KW	950kg	

Note: In above table, output is reverse to container size. That means smaller container size, larger output.For details, please take the reference of quotation.

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SG32(20)-E Large Infusion Bottle Filling Machine

Main application

Mainly used for filling of glass infusion bottles in pharmaceutical
factories, also can used for other glass containers.

Characteristicts

It adopts constant pressure self-flowing diaphragm valve type filling, controls filling volume through setting filling time, which has high automation degree and fling precision, and can realize no-bottle-nofilling and CIP/SIP function.

Main technical parameter

Model	Suitable sizes	Output	Filling heads	Power	Net weight	Overall dimension
SG32-E	50-500ml (glass bottle)	6000-22000 pcs/h	32	3.45kw	1300kg	1821×1700×2100mm
SG20-E		5000-12000 pcs/h	20	2.75kw	1000kg	1400×1285×2100mm

Note: In above table, output is reverse to specification. That means smaller the specification, larger the output will be. For more details. please take the reference of quotation.

SYS Serise Large Infusion Bottle Stoppering Machine

Main application

Mainly used for stoppering of glass infusion bottles in pharmaceutical
factories, also can used for other glass containers.

Characteristics

This machine adopts rotary tracing stoppering method that can finish the whole process from bottle trsndfering, stopper orienting, splugging to bottle output. It adopts principle of starwheel orientation, gradually stoppering which has high orientation precision and long stoppering time.

Main technical parameter

Model	Suitable sizes	Output	Plugging heads	Power	Net weight	Overall dimension
SZG16	50-500ml (glass bottle)	6000-12000 pcs/h	16	5.9kw	1000kg	1550×1100×1200mm

Note: In above table, output is reverse to specification. That means smaller the specification, larger the output will be. For more details. please take the reference of quotation.

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DZT Series Labeling Machine

Main application

This machine is mainly used for labeling all kinds of round infusion or plastic bottles in pharmaceutical factories.

Characteristics

This machine adopts linear rotary drum structure. It can finish procedures such as bottle feeding, pasting, label feeding, batch number printing or printing with ink jet printer, labeling and etc.

Main technical parameter

Model	Suitable sizes	Output	Qty. of label box	Label size	Power	Net weight	Overall dimension
DZT500C	50-500ml (round glass and plastic bottle)	6000-18000 pcs/h	3	≤130×110 mm	3.5KW	850kg	1580×1010×1200mm
DZT500B		6000-12000 pcs/h	2	≤130×110 mm	3.5KW	800kg	1580×1010×1200mm
DZT500A		3600-9600 pcs/h	1	≤140×110 mm	3.5KW	800kg	800×860×1200mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.

LTB Series Non-dry Sticker Labeling Machine

Main application

This machine is mainly used for labeling of adhesive label for round bottle such as glass infusion bottles or plastic bottles in pharmaceutical factories.

Characteristics

This machine adopts linear labeling structure. It can finish procedures such as bottle feeding, scrolling, label passing, coding, labeling and etc.

Main technical parameter

Model	Suitable sizes	Output	Power	Net weight	Overall dimension
LTB-A	2-50ml (Vial)	6000-18000 pcs/h	1KW	400kg	1400×450×1000mm
LTB-B	50-1000ml (round glass and plastic bottle)	3600-12000 pcs/h	1KW	600kg	1400×450×1000mm

Note: In above table, output is reverse to container size. That means smaller container size, larger output. For details, please take the reference of quotation.