ALXD Ampoule And Vial Washing-Drying-Filling Production Line

The ALXD ampoule and vial washing-drying-filling production line is composed of the QCL series vertical ultrasonic bottle washing machine, ASMR tunnel hot air circulation sterilizing oven and KAGF series ampoule and vial filling machine, whilst the three component machines can also be used independently. Suitable for production of ampoule injection of 1-20ml and vial injection of 2-25ml, it can complete more than 20 procedures such as spray and water filling, ultrasonic rough washing, bottle exterior wall washing, bottle interior wall continuous twice circulation water washing, primary blowing, primary fresh water washing, continuous twice blowing, bottle exterior wall blowing, preheating, drying, sterilizing, pyrogen removing, cooling, front gas charging, filling, rear gas charging, sealing, stoppling, and etc. The production line is a high speed injection production line satisfied the GMP requirement which has been successfully developed by our company after years of research based on the national conditions of Chinese injection industry. The product has strengths such as high production speed, high rate of finished products, convenient operation and maintenance, low running costs, and etc. The machine uses the PLC system to realize automatic control for the whole production process.

Features

◆ The bottle washing machine adopts mechanical hands to clamp the bottles, suitable for ampoules of 1-20ml and vials of 2-25ml.
◆ The water-gas spray needles adopt the reciprocating tracking insertion method for bottle washing, featured by excellent washing effect and energy saving. It is also provided with a device that prevents the needle holder from shaking to enhance the accuracy of the spray needle's insertion into the bottle and reduce the occurrence of needle breakage.
◆ The water and gas pipes are totally separable from the spray needles, so that cross contamination is avoided and GMP requirements are satisfied.
◆ The spray needle guide mouth of the bottle washing machine adopts imported ceramic bushing without wear.
◆ Bottle discharging is realized by the integral imported synchronous belt that is connected to the bottle pushing block to convey ampoules, a structure that ensures stable and reliable operation.
◆ The oven adopts hot air circulation heating to achieve temperature and energy saving.
◆ The oven is provided with the function of anti power cut high-efficiency self-heating at the high temperature section to ensure safe running.
◆ The oven can be equipped with the circulation water cooling device to reduce the instability of wind pressure in the clean workshop and to control air quantity.

◆ The oven is provided with the imported differential pressure gauge, frequency converter, and etc., featured by sensitive system and stable performance.
◆ The oven is provided with the wind pressure automatic balancing system to avoid the drifting of airflow at the high temperature section.
◆ The production line is provided with the three-machine automatic control device to ensure balanced and reliable production.
◆ The filling-sealing machine can be used for filling of ampoules and can also be used for filling, stoppling and semi-stoppling of vials.
◆ The filling machine is provided with sufficient gas charging work stations to ensure one-off charging, front and rear nitrogen charging, medicine filling, stoppling and semi-stoppling.
◆ The filling machine is provided with the functions of no filling in case of no bottle and no stoppling in case of no bottle.
◆ The filling-sealing machine can be equipped with the 100-grade laminar flow hood, which can also be provided by users.

Optional Add-on

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

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

Technical Parameters

Product Model	QCL180+ASMR620/48+KAGF8	QCL180+ASMR620/48+KAGF10
Applicable specifications(ml)	Vial: 2-25 Ampoule：1-20	Vial: 2-10 Ampoule：1-20
Capacity(pcs/h)	Vial：6,000-18,000 Ampoule：6,000-23,000	Vial：8,000-20,000 Ampoule：8,000-28,000
Cleanness(%)	> 99	> 99
Qualified rate(%)	≥ 99(standard solution)	≥ 99(standard solution)
Filling accuracy(%)	≤ ±2.5	≤ ±2.5
Fresh water consumption and pressure	Consumption:0.4-1.0cbm/h Pressure: 0.2-0.3mpa	Consumption:0.4-1.0cbm/h Pressure: 0.2-0.3mpa
Purified compressed air consumption and pressure	Consumption:30-75cbm/h Pressure: 0.25-0.35mpa	Consumption:30-75cbm/h Pressure: 0.25-0.35mpa
Sterilizing temperature(°C)	300-350	300-350
Exhaust volume(m3/h)	Vial：500 Ampoule：900	Vial：500 Ampoule：900
Air Cleanness (Class)	100	100
Gas fuel consumption and pressure	Consumption: 1.5-2.5cbm/h Pressure: 0.2-0.3mpa	Consumption: 1.5-2.5cbm/h Pressure: 0.2-0.3mpa
Oxygen consumption and pressure	Consumption: 1.2-1.5cbm/h Pressure: 0.2-0.3mpa	Consumption: 1.2-1.5cbm/h Pressure: 0.2-0.3mpa
Speed of vacuum pumping (m3/h)	20	20
Overall dimensions(LxWxH) (mm)	100	100
Weight(kg)	7500	7500
Power capacity	380V50hz, 71kw	380V50hz, 71kw