

GZS-15A-Type High Productive Automation Machine for the Production of Suppository



Description:

GZS-15A-Type High Productive Automation Machine for the Production of Suppository is a new product developed by means of digesting and absorbing foreign advanced technology and integrating with suppository production practice home and abroad. It is the highest automatic suppository equipment and yields the greatest in the country today.

The unit consists of four parts:

1. High-speed band-making machine;
2. High-speed infusion machine;
3. High-speed freezer;
4. High-speed sealing machine. All the processes can be made automatically including shell-making, infusing, cooling, shaping, and sealing of the suppositories. It also doesn't infuse in the collapse and automatic rejection of it. The unit is controlled by PLC procedure with human-machine interface operation and it is the highest automatic suppository equipment in the country today.

Technical parameters:

1. Output : 18000-30000 granules/h
2. Dosage : 1-5ml
3. Allowable error of dosage : $\pm 2\%$
4. Shape of suppository : Bullet, torpedo shape
5. Center distance: 17.4mm
6. Patterns on a die: 15 granules
7. Sheets specification: height: 56-58mm, thickness: 0.15 ± 0.01 mm
8. Capacity of reserve liquid : 50L
9. Filling height : 2000 mm
10. Power Voltage : 380V three-phase AC
11. Total Power : 17KW

12. Barometric pressure : 0.55-0.65MP
13. Gas consumption : 1.0m³/min
14. Water consumption : 480L/h (circulations)
15. Size of appearance : 7400×2100×2400 mm
16. Total weight : 3000kg

Work principle

The process route of suppository production is Coiling package (PVC, PVC/PE) →preheating →welding →knurling →bubble shaping →infusing →getting into shape through cooling →preheating →sealing →pressing batch number →pressing tearing line →shearing bottom →edging upside →shearing with counting →finished product packing. The coiled plastic sheets (PVC, PVC/PE) are blown into shape with positive pressure by suppository band-making machine and automatically go to the infusion station. Through a high precision metering mechanism the well mixed medicine liquid is infused in the empty shell automatically and then going into the cooling station. After low-temperature shaping for some time it turns from a liquid state to a solid state becoming a solid suppository. Through the processes of preheating in the sealing station, sealing upper mouth, pressing batch number, pressing tearing line, shearing bottom, edging upside, and shearing with counting the finished suppositories are made.

Characteristics of technology

1. The adoption of PLC programmable control and human-computer interface operation the unit is simple to operate and with high automaticity.
2. With the function of automatic deviation rectification the characters' position can be controlled as you like. The suppositories have the neat and good appearance.
3. With the function of detecting collapse, infused quantity, the liquid level of the charging basket.
4. The infusion is adopted the servo motor system exactly adjusting the infusing quantity with menu-memory-function and simple to change the specifications.
5. The adoption of insert-type straight line infusion mechanism has the advantages of correct location, no drop medicine, and no adhesion phenomenon.
6. Cooling protection shut down, the band comes out continuously without end breaking and low waste rate.
7. Not infusing the wastes, auto-drill, and automatic rejection of them at the end of the machine.
8. Interlock protection, intelligent alarm, and safety assurance.
9. Continuous band-making and sealing and the shearing numbers can be set at will.