

GHL-100

Rapid Mixer Granulator Machine



**EQUIPMENT
TECHNICAL PARAMETER**

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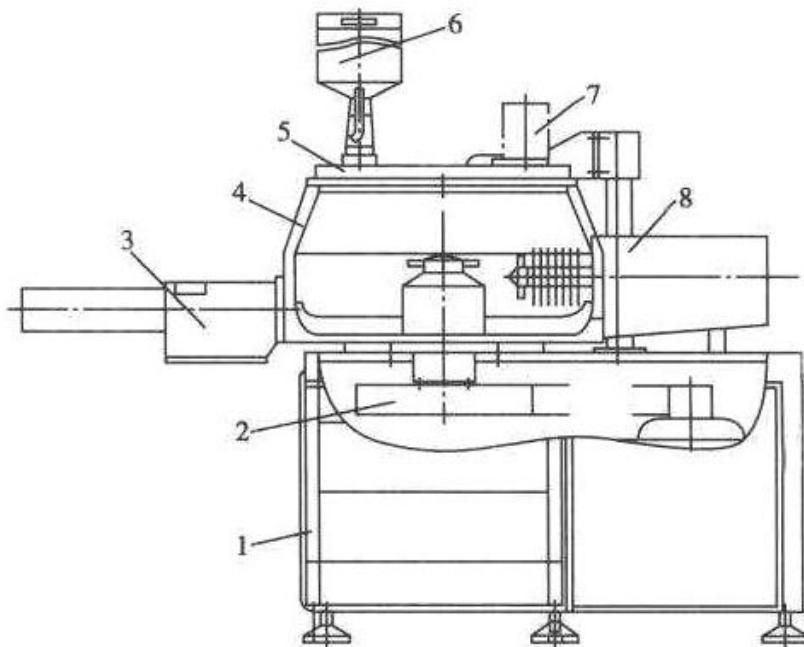


GHL-100 Rapid Mixing Granulating Machine



1. Mainly applied by pharmacy and foodstuff industry to mix or make granules.
2. The machine is made with stainless steel and mainly consists of mixing paddle, granulating blades and cylinder.
3. This vertical type drum with completely sealed driving shaft make it possible for water washing. During the production procedure, the entire cycle of dry mixing – wet mixing - making granules is finished in the drum, and finally the granules are produced into the automatic port. The design and processing follows GMP standard.

SCHEMATIC DIAGRAM



1. 扶梯 Staircase 2. 搅拌传动 Mix System 3. 出料装置 Dishcarging System 4. 筒体 Drum Body
5. 盖板部分 Lid 6. 加液口 Additive Inlet 7. 视窗 View Port 8. 制粒部分 Sheering System

Equipped with elbow mixing blades, mixing shafts, and shredding shafts with air sealing devices, pneumatic locking of the pot body, and low-noise nylon couplings. This type of equipment has a safety interlock device, which ensures safe and reliable use; The equipment adopts a horizontal structure, with good overall rigidity, simple structure, and easy maintenance; The agitator shaft and chopper shaft are equipped with air seals, which, like large-scale production models, can reliably ensure that no black spots are produced during the granulation process; The main components are installed inside the body, with a 304 stainless steel casing for the outer cover, and all parts that come into direct contact with the drug are made of 304 stainless steel; The granulation process is sealed, equipped with a curved stirring blade and 2-5 shredding knife sets. This type of equipment is equipped with dual frequency converters for speed regulation of the mixing blade and chopper blade, touch screen and PLC control, and comes standard with a paper tape printer.

WORKING PRINCIPLE

1. It mixes the powder material and binder in a cylindrical or conical container, fully mixes it into a wet soft material by the bottom mixing paddle, and then cuts it into Uniform wet granulation.
2. When the machine is working, several formulations of materials are added to the working container at one time, and the adhesive is injected after mixing, or one formulation of materials and adhesives are added to the working container at one time. After the soft material is mixed by the stirring paddle, the cutting reamer grinds the soft material into granules.
3. When the reamer is driven by a two-speed motor, so the granules of different sizes can be obtained by controlling the solubility of the adhesive, the reamer speed, and the crushing time, ensuring that the production of medicines in From batch to batch, the quality of particle size distribution, density, fluidity, etc. reaches a high level of repetition. GHL series high-efficiency wet mixing granulators are automatically produced according to the same procedure to ensure the granulation quality of the product.

MANUFACTURING REQUIREMENTS

1. The particle size range of granulated products is 16-80 mesh (according to process requirements).
2. All welding must use the argon arc welding process, and the welding parts must be polished and passivated, and the surface should be smooth and flat.
3. The material discharged from the discharge port must be cleared at one time, and no material accumulation is allowed.
4. Surface finish: the material contact surface and equipment surface roughness $Ra < 0.6\mu m$, the outer surface roughness $Ra < 0.8\mu m$, and the straightness on the outer diagonal line $\leq 5/1000$.
5. A control switch is installed on the discharge port and the pot cover, and has a safety interlock function. Only when the discharge valve and the pot cover are closed, the stirring

motor and the granulating motor can be turned on. The opening of the door should be free and flexible, the motor should run smoothly without noise and vibration, and the working noise should be less than or equal to 75db.

6. The distance between the bottom of the pot and the bottom of the stirring paddle should be $\leq 1\text{mm}$ to solve the problem of aggregates at the bottom of the pot. At the same time, the shredding knife adopts a side-mounted type, the blade is easy to replace, and the whole shredding knife assembly has no dead angle for cleaning. Among them, the seal between the stirring drive shaft and the cylinder is preferably air-sealed, which can be air-sealed and water-washed. The seal between the stirring drive shaft and the cylinder and the seal between the granulation knife shaft and the cylinder should be reliably sealed to prevent dust from entering and avoid cross-infection.
7. The AC three-phase five-wire system is used for power supply to ensure reliable grounding of the system. There is an emergency stop and effective button on the obvious and easy-to-operate position of the machine.
8. Others are implemented according to industry standards.

TECHNICAL PARAMETER

MODEL	GHL-100
Volume (L)	100
Loading system	0.4-0.6
Mixing speed (rpm)	0-400
Hybrid power (kw)	7.5
Cutting speed (rpm)	0-3000
Cutting power (kw)	2.2
Whole machine power (kw)	12
Equipment size (mm)	1800*800*1650

ELECTRONIC PART LIST

NAME	SPECIFICATIONS	MATERIAL QUALITY	QTY	BRAND	NOTES
frame	No. 8 national standard channel steel	Q235	1	Hanyoo	
Shell	1.5mm	304	1	Hanyoo	
Reducer	100L	Hardened reducer	1	Wuxi Gearbox Factory	
Mixing motor	7.5KW		1	Dazhong	
Knife motor	2.2KW		1	Dazhong	
Main shaft air seal			1	Hanyoo	
Cutting knife air seal			1	Hanyoo	
Mixing blade	100 type elbow type	304	1	Hanyoo	
Cutting knife		304	6	Hanyoo	
Cylinder body	100	304	1	Hanyoo	Wall thickness 10mm machining
lid	100	304	1	Hanyoo	3mm wall thickness head
Liquid filling bucket	6L	304	1	Hanyoo	Mixing valve
Mirror			1	Hanyoo	
Bag outlet			1	Hanyoo	
Lift cylinder			1	AirTAC	
Discharge cylinder			1	AirTAC	
Solenoid valve			3	AirTAC	
Discharge device	100	304	1	Hanyoo	
seal up				Germany UKS	
Mixing frequency converter		7.5KW	1	Delta	
Knife frequency converter		2.5KW	1	Delta	
PLC and touch screen			1	Delta	

Low voltage electrical apparatus			1	Schneider	
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