



Wuxi Jangli Machinery Co.,LTD

--25+Years Focus On Softgel ONLY

JL-300III Softgel Production Line

Brochure



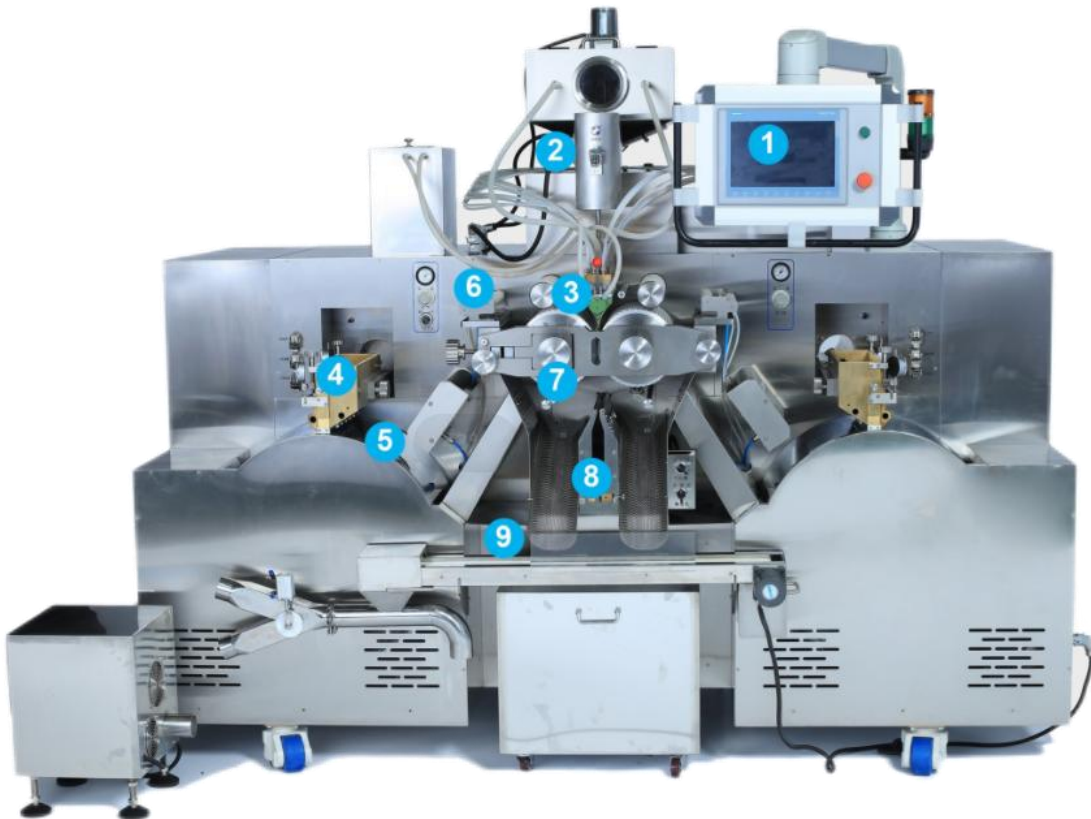
Introduction

JL-250III Softgel encapsulation machine is servo motor driving equipment designed for mass production requirement. It is fast, reliable, high-tech, and compact in size. As a matter of fact, this machine is powered by servo motor driving which makes it run quicker, while staying stable at the same time. More specifically, the JL-250III Softgel Machine can produce 200,000 softgel capsules per hour while running at a speed of 7 RPM. With this kind of velocity, you are assured of comfortable softgel capsule mass production. It is capable of high production levels, while maintaining minimal floor area coverage.

Specification

Die Roller Size:	Ø150x250mm (10")
Rotating Speed:	0~12RPM(frequency control)
Single Plunger Filling Volume:	0~2ml
Plunger Quantity:	20 pieces (10 on each side)
Filling Volume Accuracy:	+/- 0.5%
Power Consumption:	12kw
Dimension:	2400X1250X2100(h)mm
Weight:	2000kgs

Structure



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|---|---|---|------------------|
| 1 | PLC Touch Screen | 7 | Capsule Stripper |
| 2 | Medicine Filling Pump | 8 | Mangle Roller |
| 3 | Die Roller Housing | 9 | Capsule Conveyor |
| 4 | Gelatin Spreader Boxes | | |
| 5 | Casting Drums | | |
| 6 | Gelatin Ribbon Lubricating and Driving System | | |

PLC Touch Screen

All the functions of the JL-300III Softgel Making Machine are controlled using a PLC touch screen control panel. You can configure, and monitor the soft capsule encapsulate machine using this interactive controller. It presents information in full color, and is complemented by some Start, Stop and Set buttons.

Medicine Pump

- Medicine filling pump is independently driven by a servo motor and electronically synchronized with the die rollers.
- During operation, the medicine pump exhibits an accuracy level of $\pm 1\%$. This high level of accuracy, extends the lifespan of the direction guiding plate. Moreover, there is a new flat cam design which eliminates the need for human intervention when adjusting the direction guiding plate of this machine.
- The plunger component is made of a specially treated material which is supremely resistant to wear, and tear. Along with this, the plunger is made of stainless steel which is light, and durable at the same time.

Die Roll Housing

- Two separated servo motor drive two die roller shaft, faster and more accurate and no gear driving means no lubrication needed anymore.
- Once the die rollers are mounted, the on board computer in this machine performs all the necessary alignment, and timing automatically! This saves time, and guarantees accurate results.
- The die roller shafts make use of German, and P4 bearings. These precision components ensure that the two shaft parallelism is lower than 0.02mm. Furthermore, they keep the die roller's round jump at less than 0.02mm.
- We adopted pneumatic device to give pressure to the die roller, so the process is easy and convenient.

Gelatin Spreader Boxes

An AGT(Automatic Gelatin Testing and Adjusting) system is used for this softgel machine. By using AGT system, the operator just need to input target thickness of the gelatin and the computer will complete testing and adjusting automatically, which reduces manual errors and gelatin wasting.

Common manual gelatin thickness adjusting system is still optional.

Casting Drums

- A big size casting drum made of SS316 material is smooth, and the drums round jump can be configured to within 0.03mm for maximum accuracy.
- It kept constantly cool using some anti-freeze liquid. The liquid's temperature is further kept cool using an external water-chilling unit. For maximum cooling effect, a high power cooling fan with VFD control is installed inside the machine for the casting drums.

Gelatin Ribbon Lubricating and Driving System

- The micro-lubricating oil roller has an innovative design. It is made of TT material, and has a collection of numerous holes. During operation, the oil flows right out of the holes smoothly. Electronic metering pumps are installed to control the lubricating oil supplying, so the lubricating oil quantity can be adjusted accurately on touch screen.
- Easy access from the operator side to feed the gelatin ribbon on the oil rollers.

Capsule Stripper

Easy attachable softgel capsule strippers. Nylon brushes are standard while silicon rollers are optional.





Mangle Roller

The rolling speed can be adjusted on touch screen according to the gelatin ribbon tension.

Capsule Conveyor

The JL-250III Softgel Making Machine is equipped with a conveyor belt to transfer softgel capsules to tumble dryers. Conveyor belt is designed bi-directional, which is helpful for waste capsules collecting at the beginning of the production.

Output List

Capsule		Cavity Number	Output/hour (6rpm)
Shape	Size		
Oval 	6#	936	224,640
	8#	799	191,760
	10#	705	169,200
	14#	610	146,400
	16#	545	130,800
Oblong 	8#	672	161,280
	10#	656	157,440
	16#	560	134,400
	20#	387	92,880
Round 	38#	440	105,600
Tube 	20#	406	97,440

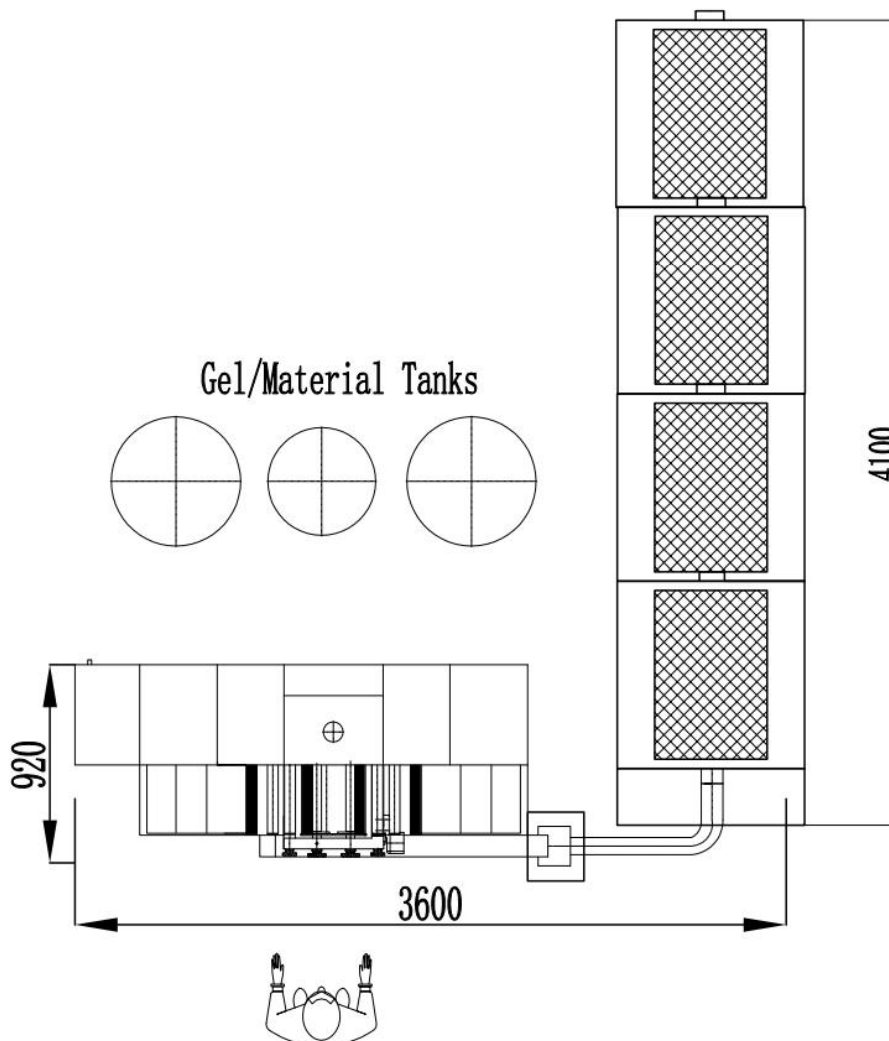
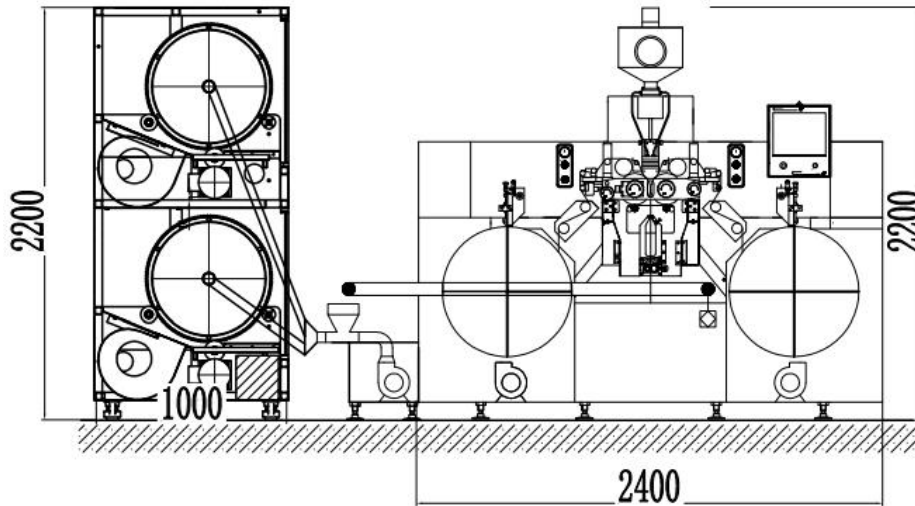
Other Shapes Available



Electrical configuration

1. PLC and touch screen: SIEMENS
2. Lower voltage apparatus: Schneider
3. Cable Conduct: Murrplastik
4. Terminal block: Weidemuller
5. Temperature Sensor: ABB

Standard Layout



Auxiliary Equipment



Initial Tumble Dryer

Big baskets used for softgel shaping and initial drying

Model: JLGZ-C

Quantity: 6 baskets



1000L Gelatin Melting Tank

Used to make gelatin liquid. It is made by stainless steel and with inner layer, heating layer and insulation layer three layers. It is heated by hot water circulation.

Model: JLRJ-1000

Quantity: 1 set



600L Medicine Preparation Tank

Tank used to mix medicine to make it smooth. It is three-layered structure, can be heated by circulation hot water. It adopted Star cycloidal reducer and three layer stirrer. With homogenizer on bottom to mill material better.

Model: JLPY-600

Quantity: 1 set



Auxiliary Equipment Unit

Consist of Hot water tank, hot water circulation pump, vacuum pump, vacuum condenser, electric cabinet and pipelines and valves. Used to heat and vacuumize the gelatin melting tank.

Quantity: 1 set



200L Gelatin Service Tank

This tank is used for storing and transporting gelatin from the gelatin melting tank to the softgel encapsulation machine. It adopts compressed air to press the gelatin out of the tank.

Model: JLBW-200

Quantity: 4 sets



200L Medicine Service Tank

This tank is used for storing and transporting medicine from medicine preparation tank to softgel encapsulation machine. It is single layer.

Model: JLSY-200

Quantity: 2 sets



Softgel Drying Trays and Trolleys

PP material and stackable drying trays, used for softgel final drying. Every 30 trays stack on one trolley