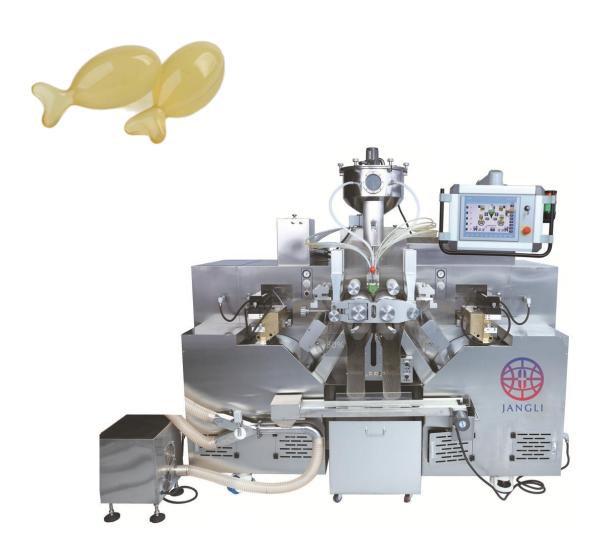


## **Wuxi Jangli Machinery Co.,LTD**

--25+Years Focus On Softgel ONLY

# **JL-250II Softgel Production Line**

Brochure





#### Introduction

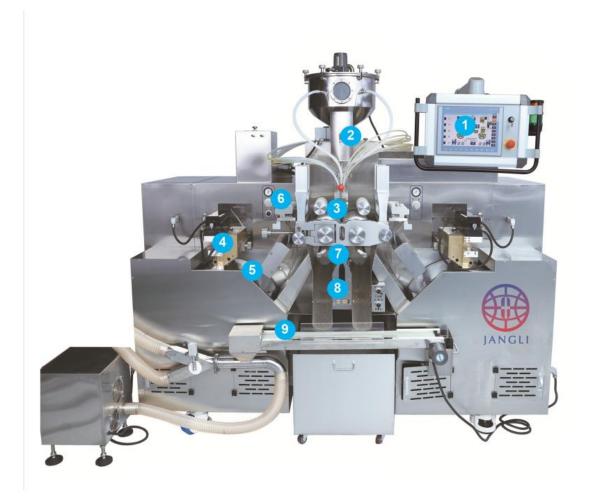
JL-250III Softgel encapsulation machine is servo motor driving equipment designed for mass production requirement. It is fast, reliable, high-tech, and compact in size. As a matter of fact, this machine is powered by servo motor driving which makes it run quicker, while staying stable at the same time. 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:	d: 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:	2200X1000X2100(h)mm	
Weight:	2000kgs	



#### Structure



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

### Large Scale Softgel Capsule Machine Servo Motor Driving



#### **PLC Touch Screen**

All the functions of the JL-250III 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 +-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.

## **Large Scale Softgel Capsule Machine Servo Motor Driving**



#### **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 best is designed bi-directional, which is helpful for wast capsules collecting at the beginning of the production.



## **Output List**

Capsule		Cavity Number	Output/hour	
Shape	Size	Cavity Number	(6rpm)	
	6#	585	210,600	
Oval	8#	504	181,440	
	10#	442	159,120	
	14#	384	138,240	
	16#	341	122,760	
Oblong	8#	420	147,600	
	10#	410	126,000	
	16#	350	88,200	
	20#	245	99,360	
Round	38#	276	88,200	
Tube	20#	245	58,800	
Other Shapes Available				

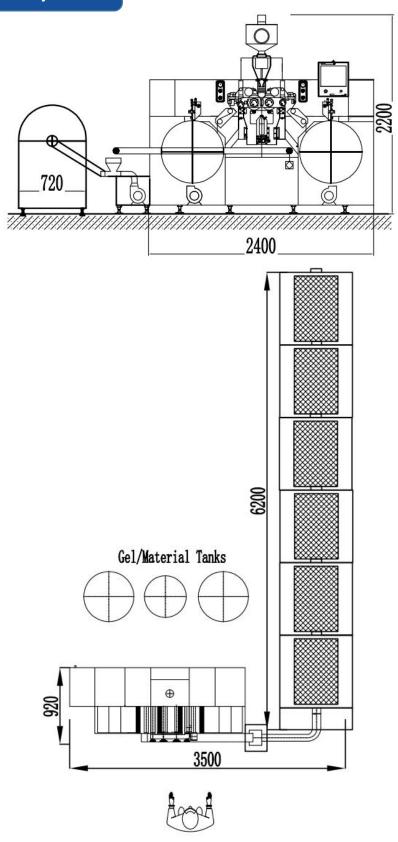
## **Electrical configuration**

PLC and touch screen: SIEMENS
 Lower voltage apparatus: Schneider

3. Cable Conduct: Murrplastik4. Terminal block: Weidemuller5. 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 homogenerizer 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