SaintyCo

Pharma Process & Packaging

www.saintyco.com

PAINT & LIQUID

-PACKAGING PRODUCTION EQUIPMENT

PAINTBALL PRODUCTION LINE

The **Paintball Production Line** is improved according to the features of paintball production and on the basis of the softgel encapsulation machine. The machine is suitable for the research and production of paintball and bath balls. This machine is the best style for the small production of paintballs and bath balls. It has stable performance, lower cost, precise volume and high degree of automation. The liquid level of the gelation box is controlled by the level sensor ande the injector adopts new temperature controlling system, so the temperature is stable and can be controlled precisely the touch screen is designed reasonable and it is easy to learn and operate. The maximum capacity is about 35,000 pcs/h.

Steps in the Encapsulation Process:

- Step One - Gelatin Preparation

  Powdered gelatin is mixed with water until a liquid gelatin is formed in a reactor. The reactor serves as a gelatin-melting tank. It is important that this process is done quickly and that minimal air is in the gelatin. When color is added to the gelatin - it is done so by a high-speed vacuum mixer - again to decrease the amount of added air to the gelatin. The gelatin is stored in heated tanks until used.

- Step Two - Encapsulation

  Forming the Gelatin Ribbon The gelatin is supplied to the encapsulation machine through a gravity driven system. The gel is sent to the machine and two ribbons of gelatin are formed. The ribbons of gelatin are cooled and lubricated with non-toxic oil. The gelatin is now ready to be shaped and filled.

  Filling the Capsule

  The two ribbons of gelatin are run through recessed dies of the desired shape and size. The ribbon of gelatin is forced into the recessed areas of the die by the chosen fill material. At the same time the capsule is filled within the die it is sealed and cut from the ribbon of gel.

- Step Three - Drying of Capsules

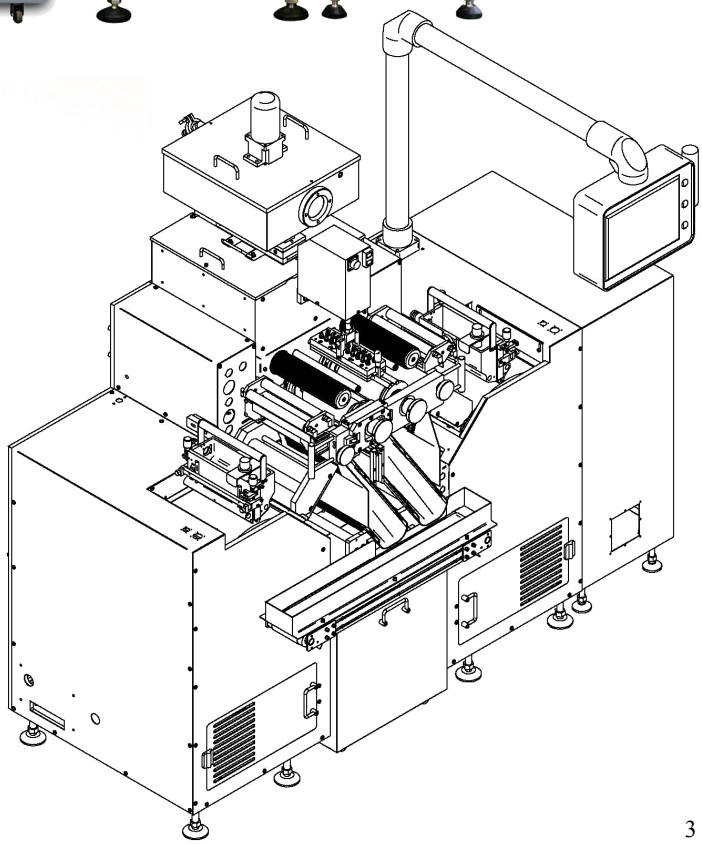
  Stage One - Capsules that have just been filled are very soft due to the amount of moisture they contain. Therefore they are sent immediately through a tumble dryer via a conveyor. The main purpose of the tumble dryer is to remove the thin layer of oil on the outside of the capsule as well as some of the moisture in the gelatin.

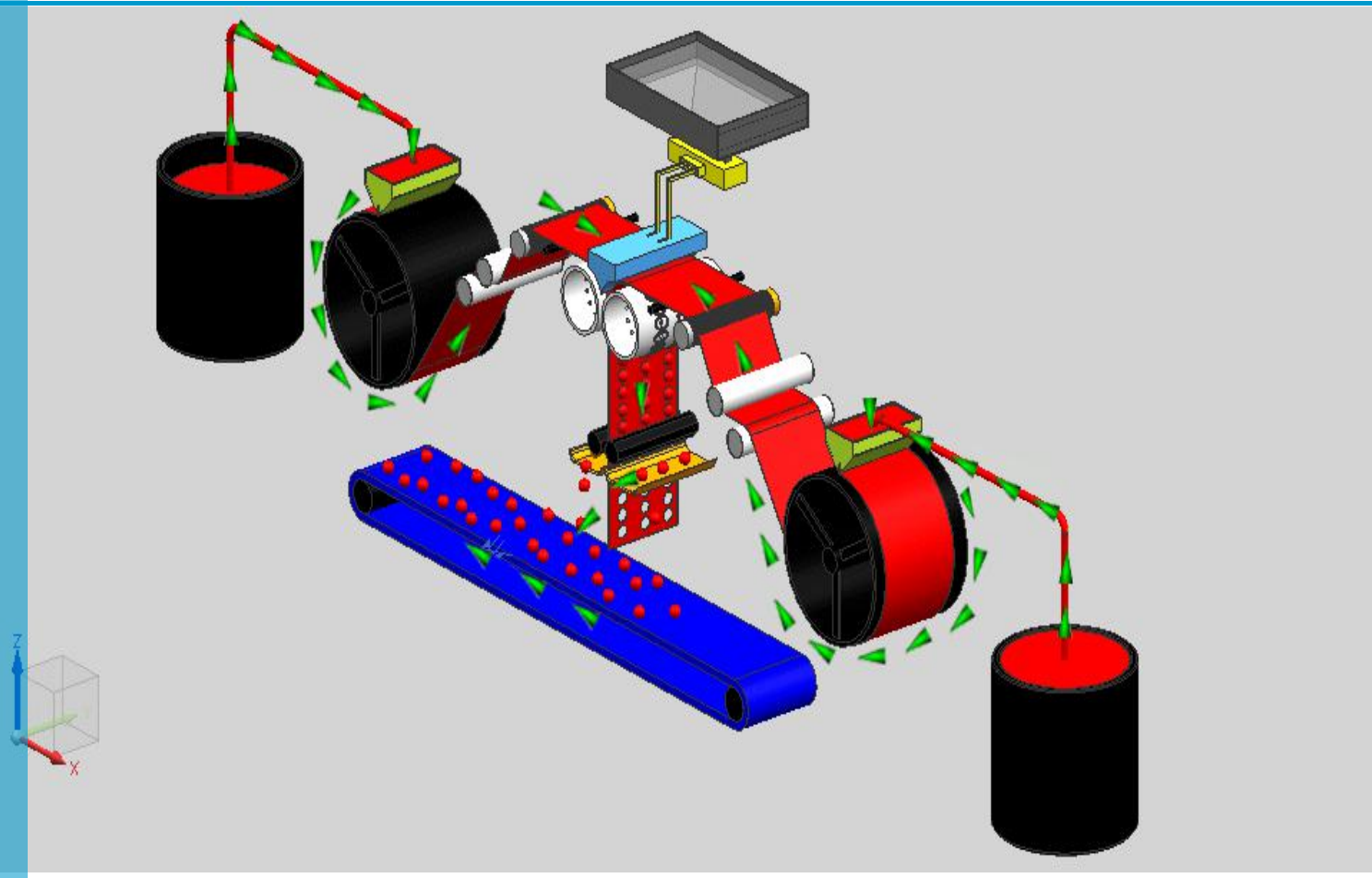
  Stage Two - After being tumble dried, the capsules are placed on trays and moved into rooms that are climate controlled to continue drying. Air is circulated around the trays of capsules for up to 48 hours.

- Step Four - Inspection

  Before any capsules are packaged they are inspected for uniformity, proper filling and to make sure there are no air pockets in the gelatin or dimples in the shell.

APRILA SG250P





Technical Data	Aprila SG50P	Aprila SG250P
Mold Sizes (mm)	φ150 x 50	Φ150 x 250
Speed	Up to 1.8 RPM	Up to 1.8 RPM
Capacity (40# Round 1.8RPM)	4,500 pcs/h	35,000 pcs/h
Power	220V/380V,50/60Hz,3 Phase,2 Kw	220V/380V,50/60Hz,3 Phase,19 Kw
Machine Dimensions (mm)	1700x810x1750	2050x1200x1850
Weight	600 kgs	1900 kgs
Tumble Dryers	2	4
Tumbler Size	Φ316x417mm	Φ580x900mm
Tumbler Dimensions	1400x 450x800mm	4100x880x1200mm
Pump Plunger Count	4	14

Auxiliary Support Equipment

Chilling System

The chilling unit is modular to fit your available floor space.

Refrigeration capacity: 7.91Kw
Power: 220 V 50 Hz 1P 3.33Kw
Dimensions: 930x 520x975mm
Weight: 135Kg

Tumble Dryers

Each tumble dryer has a large, high powered centrifugal fan, and is equipped with an anti-static device to prevent softgels from sticking due to electromagnetic charge build-up.

Drying Trays

The softgels come out of the tumble dryers and are placed on paper lined drying trays. The trays are then stacked on dollies and pushed into drying tunnels.

Dimensions: 750x475x55mm

Auxiliary Support Equipment

Gelatin Melting Tank

Capacity gelatin melting and mixing tank is made from all stainless steel construction with sanitary stainless steel valves and clamps, a triple wall jacket with breather.

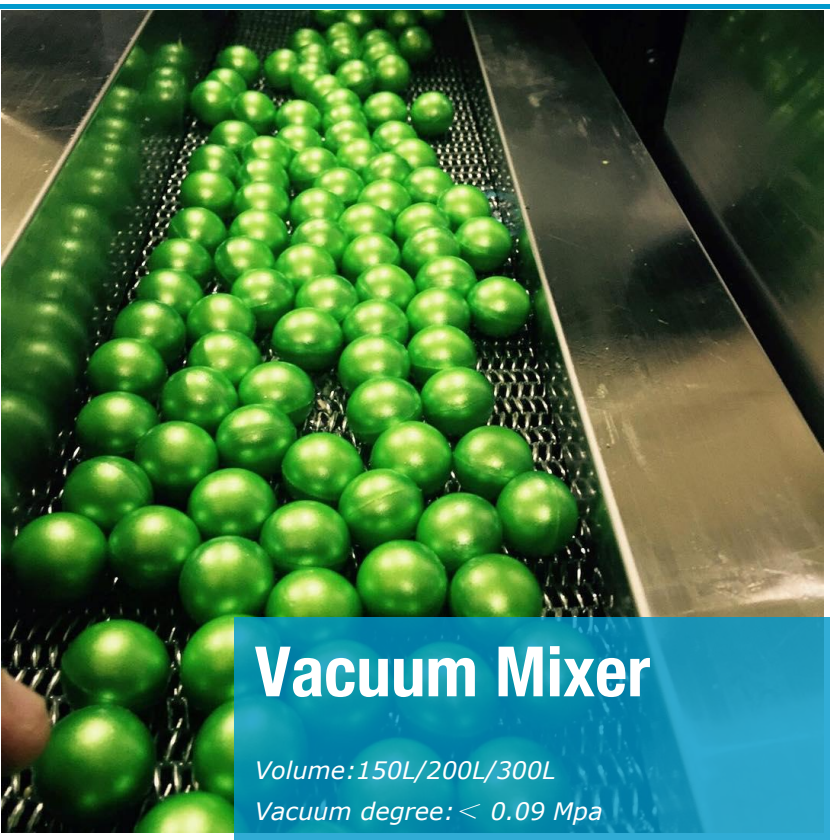
Color Mixer

Capacity:800 kgs/h
Mixing power:7.5 kw
Mixing speed:0-1500 rpm
Dimension:1100x700x2400 mm

Gelatin Service Tank

Volume:100L/200L/300L
Temperature:< 100℃
Pressure:< 0.05Mpa
Power supply:220V/60Hz
Dimension: Φ550x1210 mm/ Φ700x1330 mm / Φ800x1370 mm

Auxiliary Support Equipment



Vacuum Mixer

Volume:150L/200L/300L
Vacuum degree:＜ 0.09 Mpa
Cutting speed:0-1500 RPM
Mixing speed:50 RPM
Dimension:1580x860x2100 mm/1600x860x2150 mm/ 1710x860x2200 mm

Tooling

The Softgel tooling is custom made to meet your needs with a 2-week turnaround. It features harder aircraft grade aluminum, colored timing marks, and “bead blasting” to minimize gel adhesion.

Complete set includes:

- 2 die rolls with stainless steel inserts
- Teflon ceramic coated aluminum wedge
- Solid Teflon distribution plate
- Industrial, compact storage case
- Timing gear

SaintyCo also offer:

Softgel Manufacturing Line

Capsule Printer

Capsule Counting Line

Cartoning Systems

Blister Packing Solutions

SaintyCo
Pharma Process & Packaging