



**INORA**  
Pharmaceutical Machinery

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# 01

Introduction

**INORA**  
Pharmaceutical Machinery Expert

Inora is a unique professional machine manufacturer in Taiwan. We engaged in researching, developing, designing, manufacturing, assembling, and consulting services for biotechnology and pharmaceutical industry. Our products and services are widely used in the pharmaceutical, food, biotechnology, chemical, and cosmetic fields which include mill granulator equipment, mixer, injection line, ointment line, extraction and concentration equipment. The precision and quality of its products have been recognized by all users.

Inora will keep servicing with the best management philosophy which suggests another landmark and the successful expansion to the global market of the company.

# 02

Introduction

## 永烜機械科技

永烜機械科技有限公司是台灣一家最具規模的製藥設備供應商，一直以來秉持豐富的技術、研發、設計、製造、永續經營及周全之服務，設備廣泛運用在：製藥，食品，生物科技…等等，產品包括：粉碎混合設備，造粒乾燥設備，低空真溫濃縮設備，無菌製劑設備，軟膏生產設備等等。機械的精確度與優良品質倍受使用者的肯定。

永烜機械科技有限公司除了將繼續以現有的經營理念繼續的服務下去，更期望在將來能擴展出更大的市場，服務更多的客戶。

# 03

Introduction

## 品質要求

每一個放入我們機器小小的零件，都是經過檢驗和品質管理。只有這樣，才能確保我們產品的品質和客戶滿意度。

## QUALITY

At Inora, quality inspection and assurance are an essential parts of the manufacturing process. We will take every possible measure to keep our product quality and customer satisfaction, so you don't have to worry about it, because we really understands what quality means to you.



UL 認證

UL certified





INORA

造粒、乾燥、包衣  
生產設備

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TABLET / CAPSULE  
EQUIPMENT

# 快速混合造粒機

## SUPER MIXER GRANULATOR



已申請專利  
Patented



### 原理介紹 +

利用混合葉片將粉末和液狀之結合劑攪拌捏合，因流動成漩渦並聚結成塊，再經過高速切刀，將流動之產品切成均勻之顆粒。

### 適用產業 +

- **生技／製藥：**打錠前之混合造粒粉末混合。
- **中藥：**粉末和浸膏之混合攪拌。

### 功能 +

- **混合：**粉末與粉末之混合。
- **造粒：**粉末加入液狀結合劑之造粒。

### THEORY +

Inside the cone-shaped vessel, the main impeller mix the powder into fluidized vortex and form lumps with the binder solution. then the high speed chopper cut the lumps into even granules by high speed action.

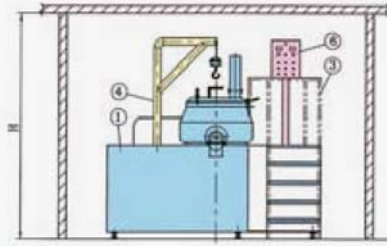
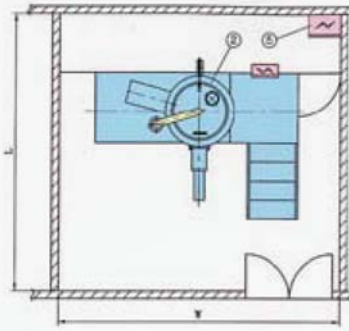
### APPLICATION +

- **Bio-tech / Pharmaceutical:** powder mixing and granulating before tableting.
- **Chinese medicine:** powder and soakage plaster mixing.
- **Food:** seasoning mixing and granulating.
- **Chemical:**
  - Chemical material mixing and granulating.
  - Plastic powder mixing and granulating.
  - Electronic metal powder mixing and granulating.

### FUNCTION +

- **Mixing:** powder and powder.
- **Granulation:** powder and binder solution.

## 流程圖 | FLOWCHART +



- 1. Frame
- 2. Mixer Tank
- 3. Ladder
- 4. Elevator
- 5. Control system
- 6. Operation Box



## 特點 +

- 氣動式排料方式,密閉性良好,操作簡易,清洗方便。
- 混合均勻度高,比例懸殊也能輕易混合均勻。
- 混合造粒時間短,約5~10min / batch 即可完成。
- 桶蓋採用AIR氣胎加壓,密閉性良好。
- 設計和製造均合乎cGMP規範及美國FDA要求。
- 特殊設計之空氣軸封,且壓縮空氣經過一只精密過濾器,形成保護氣室,可有效防止運轉中粉末掉入主軸與切刀的轉軸,而產生污染。

## FEATURE +

- High uniformity, very different proportion also can uniformly mixing.
- Short mixing time, about 5 ~ 10 min/batch finished.
- Good tightness, use air bag to clamp the cover.
- Multi safety interlock device, high safety.
- Optional equipment for different product feature.
- Multi functions of mixing, granulating and drying can produce hormone or anti-cancer medicine.
- All the design and manufacture are qualified cGMP standard and FDA requirement.

## 規格表 | SPECIFICATION +

型號 Model	全容積 (L)	工作容積 (L)	實施操作量 (KG)	外型尺寸 Size (MM) (W/L/H)
YS-MG-1	1	0.4-0.7	0.2-0.35	310x560x753
YS-MG-20	20	08-16	02-05	500x1360x1210
YS-MG-100	100	40-80	15-30	700x1600x1350
YS-MG-150	150	70-120	30-60	850x1900x2100
YS-MG-250	250	120-200	50-100	900x2000x2500
YS-MG-300	300	150-240	60-120	1000x2400x3000
YS-MG-400	400	200-300	75-150	1100x2900x3500
YS-MG-600	600	300-480	150-240	1300x3500x3700



已申請專利  
Patented

## 立式真空混合 造粒 / 乾燥機

## SUPER MIXER GRANULATOR / DRYER



### 原理介紹 +

混合桶的夾層熱水加熱，濕顆粒在桶內緩慢的旋轉與翻動，透過抽真空將濕顆粒的水份帶走，達到乾燥的效果。

### 適用產業 +

- 生技／製藥：打錠前之混合造粒粉末混合。
- 中藥：粉末和浸膏之混合攪拌。
- 食品：調味料混合造粒。
- 化工：化工原料之混合造粒、金屬粉末之混合造粒、塑膠粉末之混合造粒。

### 特點 +

- 防爆裝置：可使用有機溶劑。
- 附WIP清洗裝置。
- 各項啟閉裝置均有安全戶鎖裝置,安全性高。
- 混合葉片與桶底間隙小,相對殘留少,沒有死角。
- 特殊設計之空氣軸封，且壓縮空氣經過一只精密過濾器，形成保護氣室，可有效防止運轉中粉末掉入主軸與切刀的轉軸，而產生污染。
- 桶蓋採用AIR氣胎加壓，密閉性良好。
- 如製造荷爾蒙抗癌藥劑...等，一機可多項功能同時完成混合、造粒、乾燥、整粒。
- 設備可符合：cGMP、PIC/S、FDA要求。

## THEORY +

Inside the cone-shaped vessel, the main impeller mix the powder into fluidized vortex and form lumps with the binder solution. then the high speed chopper cut the lumps into even granules by high speed action.

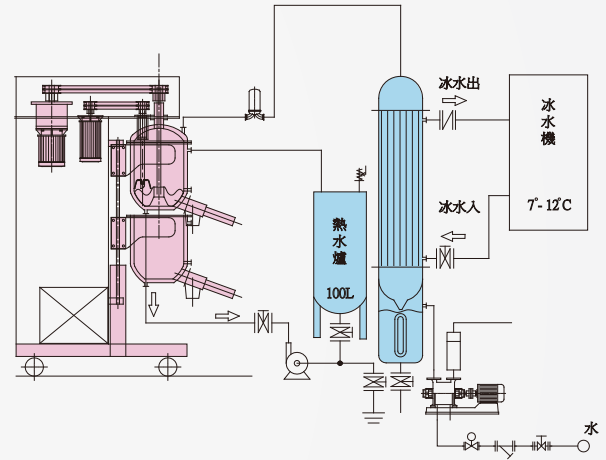
## APPLICATION +

- **Bio-tech / Pharmaceutical:**  
powder mixing and granulating before tableting.
- **Chinese medicine:**  
powder and soakage plaster mixing.
- **Food:**  
seasoning mixing and granulating.
- **Chemical:**
  - Chemical material mixing and granulating.
  - Electronic metal powder mixing and granulating.
  - Plastic powder mixing and granulating.

## FEATURES +

- Explosion Proof System is available: Suitable for organic solvent
- WIP System is available
- Multi safety interlock device, high safety.
- The clearance between impeller and bottom is very thin, therefore no dead angles and less remainder.
- Unique air seal system, a filtered compressed air is introduced into the air seal system. It prevents the powder fall into shaft and chopper, which may cause black spot and pollute the product.
- Good tightness, use air packing to clamp the cover..
- Multi functions of mixing, granulating and drying can produce hormone or anti-cancer medicine.
- All the design and manufacture are qualified cGMP , PIC/S standard and FDA requirement.

## 流程圖 | FLOWCHART +



## 自動 / 密閉方式 操作 +

- 自動 / 密閉方式 操作。
- 投料採用真空吸料。
- 黏合劑噴灑：採用噴嘴霧化方式。
- 人機界面圖控式操作：參數可記憶、可設定多層密碼、可連線圖像列印

## AUTOMATIC/CLOSED TYPE OPERATION +

- Powder Vacuum Loading is available
- Binder Spraying: Using the mist nozzle design
- Touch Screen Interface control system: all the parameters can be memorable, multilevel of pins can be set, connect to the diagrams printing

## 規格表 | SPECIFICATION +

型號 Model	全容積 (L)	工作容積 (L)	實施操作量 (KG)	外型尺寸 Size (MM) (W/L/H)
YS-MGD-1	1	0.4-0.7	0.2-0.35	310x560x753
YS-MGD-20	20	08-16	02-05	500x1360x1210
YS-MGD-50	50	20-40	10-15	
YS-MGD-100	100	40-80	15-30	700x1600x1350
YS-MGD-150	150	70-120	30-60	850x1900x2100
YS-MGD-250	250	120-200	50-100	900x2000x2500
YS-MGD-300	300	150-240	60-120	1000x2400x3000
YS-MGD-400	400	200-300	75-150	1100x2900x3500
YS-MGD-600	600	300-480	150-240	1300x3500x3700



## U 型 鍊合機

## U-SHAPED MIXER

+

### 適用產業 +

粉類

### 特點 +

- 內部無螺絲設計，減少污染。
- 採正、反轉裝置，雙層逆流，攪拌葉混合快速，入料方便，

### APPLICATION +

Is used mainly in mixed of powder

### FEATURE +

- No screw in the mixer for greatly reducing pollution.
- Reversible running combined with double-layer adverse flow. Fast mixing. Convenient material infeed.



混合箱 | Mixing Tank

### 規格表 | SPECIFICATION

全容積 (L)	工作容積 (L)	實施操作量 (KG)
150	70-120	30-60
250	120-200	50-100
300	150-240	60-120
400	200-300	75-150
600	300-480	150-240

# 濕式造粒機

## WET GRANULATOR

### 功能 +

將加溼的粉末，擠出成長形顆粒。

### 適用產業 +

製藥工業、食品工業、化學、陶瓷工業。

### 特點 +

- 大量生產、顆粒細緻、大小平均。
- 可更換網徑，任意調整顆粒大小。
- 連續式造粒。
- 容易清洗。
- 設計和製造均合乎cGMP規範及美國FDA要求。

### FUNCTION +

Granulate the wet powder into long granule.

### APPLICATION +

Pharmaceutical, food, chemical.

### FEATURE +

- Produced in a large number, fine granule, the size of granule uniformly.
- Screen diameter can be changed to adjust granule size.
- Making granule continuously.
- Convenient and precise for cleaning.
- All the design and manufacture are qualified cGMP standard and FDA requirement.

### 規格表 | SPECIFICATION

型號 Model	產量 Capacity (KG/BATCH)	外型尺寸 Size (MM) (W/L/H)
YS-WG-4	02-05	467X700X1068
YS-WG-8	40-80	750X550X1127
YS-WG-12	120-200	1395X700X1150



# 乾式造粒機

## ROLLER COMPACTOR

+



### 原理介紹 +

- 一般造粒：主要分成濕式與乾式造粒，所謂「濕式」就是在造粒過程中需加水或溶劑的黏合劑。
- 而「乾式」造粒，則免除了加水或溶劑，因此不需再乾燥（但仍可加黏合劑及潤滑劑）。
- 一些密度很鬆但比重非常輕且流動性差之原料，經過乾式造粒可獲得改善，成為假比重大、密度高、流動性良好的原料或成品。

### 適用產業 +

- 製藥：中藥、西藥、抗生素
- 化工、農產品、食品
- 將質輕密度低的粉末，壓成密度高流動性好的顆粒。

### 特點 +

- 乾式造粒：將粉末壓片、切碎、整粒三個製程設計成一體。
- 不必加水或溶劑，所以造粒後可得到穩定的顆粒。
- 造粒不需加水，所以不用乾燥，造粒過程較簡單。
- 造出的顆粒流動性非常好，能容易的充填入膠囊中。
- 可加選篩選機，將太細的顆粒篩出再做一次造粒。
- 可加選自動送粒設備以減少人力。



## THEORY +

Two categories of granulation methods : **WET & DRY**

### WET TYPE:

granulation requires water or solvent to be added during the granulation process; consequently a drying process is essential after granulation stage.

### DRY TYPE:

granulation eliminates the water, or solvent adding process, and as a result the drying process is not required. However binder or lubricant can still be added during the drying granulation process.

Some raw material have the characteristic of low density (low specific gravity) and bad flow ability. By using the Roller Compactor-dry granulation process, it will improve the above characteristics and result in a bigger bulk density, higher specific gravity and good flow ability of granules.

## FEATURE +

- Three functions in one unit compression, milling and granulating.
- No water or solvent is added, granules are highly stable after granulation.
- Without water adding in the process, drying process is not required. Therefore, granulation process is easier.
- The good flow ability of outcome granules can be easily filled into capsules.
- Option to equip a vibration sifter, it filtrates small or undersize granules for re-granulation purpose.
- An automatic suction conveyer for charging powder or granule is available as an option for saving labor cost.

## APPLICATION +

- **Pharmaceutical:** Chinese Medicine 、 Western Drug 、 Antibiotic Chemical 、 Agriculture Product 、 Food.
- Producing granules of higher specific gravity and better flow ability.

## 規格表 | SPECIFICATION

型號 Model	產量 Capacity (KG/BATCH)	外型尺寸 Size (MM) (W/L/H)
YS-RC-5	02-05	800x1000x1800
YS-RC-10	07-10	800x1000x1800
YS-RC-30	15-30	900x1100x2000
YS-RC-70	40-70	1100x1200x2050
YS-RC-100	60-100	1100x1200x2051
YS-RC-150	100-150	1400x1600x3500
YS-RC-200	150-200	1500x1800x3500

+

## 流動層噴霧 造粒乾燥機

## FLUID-BED SPRAY GRANULATOR / DRYER

+



### 原理介紹 +

利用吸風機將加熱並淨化後之空氣，抽送進入機體內，使機體內顆粒粉末產生均勻的浮動狀態，並配合一組濾袋防止粉末外漏，排放出蒸發水份，達到乾燥的目的，如另加一組噴槍時，將黏合劑或主要成份（如濃縮浸膏），利用噴槍霧化往下噴灑在均勻浮動狀態之粉末上，使粉末相互結合成顆粒後，乾燥至所須之含水量。

### 適用產業 +

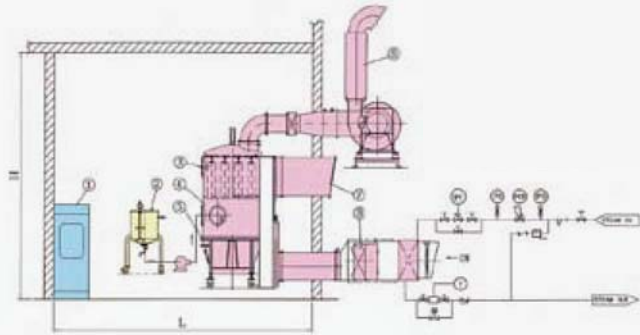
- **西藥：**打錠前之混合造粒粉末混合。
- **中藥：**濃縮顆粒之造粒及乾燥。
- **食品：**即溶食品、沖泡健康食品、咖啡、可可、牛奶、果汁粉、調味料之造粒及乾燥。
- **化工：**顏料、染料、合成原料之造粒及乾燥。

### THEORY +

Heated and purified air flows into the column by suction fan, the pellet or powder will be in uniform fluid condition inside the column, use one set of filter bags to prevent leak of powder, discharge the evaporated water to get draying purpose. If add one more spray gun can spray the binder or active ingredient downward into the uniform fluid powder, whenever the powder combined in granule will be dried to get the required moisture content.

### APPLICATION +

- **Bio-tech / Pharmaceutical:**
  - A. Western medicine: granulating and drying before tableting.
  - B. Chinese medicine: granulating and drying of concentrated granule.
- **Food:** Granulating and drying of instant food, instant health food, coffee, cocoa, milk powder, fruit flavor powder, seasoning.
- **Chemical:** Granulating and drying of pigment, pigment, dye, synthesis raw material.



- 1. Control Panel
- 2. Solution Tank
- 3. Filter
- 4. Drying Body
- 5. Trolley
- 6. Centrifugal Fan
- 7. Exhaust pipe
- 8. Heater

## 特點 +

- 混合、造粒、乾燥三種製程可在同一台設備內完成。
- 濕顆粒之乾燥速度為一般烘箱之10 ~ 20倍。
- 乾燥時因浮動均勻無死角不會因溼顆粒各位置乾燥速度不同產生色差。
- 採用上噴式霧化方式，造粒速度快且成型之顆粒均勻度高。
- 可因產品特性的不同，加裝各項選擇配備，如溫度、記錄器、自動清洗系統、除濕裝置...等。
- 設計和製造均合乎cGMP規範及美國FDA要求。

## 功能 +

- **乾燥**：含有水份之粉末或顆粒之乾燥。
- **造粒乾燥**：將細粉末噴上黏合劑或主成份，使細顆相互結合成顆粒後，乾燥至所須之含水量。



## FEATURE +

- Mixing, granulating, drying are in one machine.
- Drying time of wet granule is 10 ~ 20 times faster than conventional oven.
- No dead angel produce because of even fluid drying, no color changing of difference because of the same drying speed in any position.

## FUNCTION +

- **Drying**: drying for powder or granule which contains moisture.
- **Granulating / Drying**: spray binder or active ingredients on tiny powder to combine in granules, drying until required moisture content.

## 規格表 | SPEC

型號 Model	台車全容積 (L)	實際操作量 (KG) 依假比重:0.3計算	外型尺寸 Size (MM) (W/L/H)
YS-FDG-2	7	0.5-02	2500X2500X2100
YS-FDG-5	26	02-05	2500X3000X2300
YS-FDG-60	180	20-60	4000X4000X2800
YS-FDG-120	400	50-120	4000X4000X3200
YS-FDG-200	650	60-200	4500X5000X4500
YS-FDG-400	1300	100-400	5000X5000X5000
YS-FDG-600	2000	200-600	6000X6000X6000

# 流動層噴霧 造粒包衣機

## FLUID-BED SPRAY / GRANULATOR / COATER



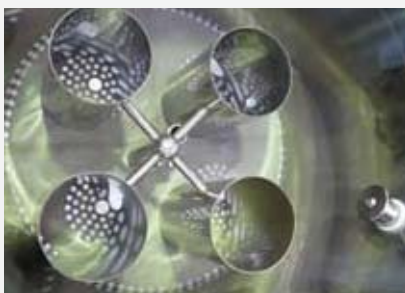
已申請專利  
Patented

### 適用產業 +

- 頂噴式：
  - 製藥：中藥、西藥、生物製劑之造粒、乾燥。
  - 即溶食品：健康食品之沖劑、果汁粉；肉精粉、調味料、乳酸菌之造粒乾燥。
  - 化工：顏料、染料及合成原料之乾燥。
- 底噴式及側噴式：  
藥品及健康食品之小圓粒製劑生產。

### 功能 +

- 頂噴式：濕顆粒粉末乾燥及細粉末噴上黏合劑之造粒乾燥。
- 底噴式：在小圓粒噴上懸浮液或膜衣、腸衣材料之包覆。
- 側噴式：在小圓粒噴上黏劑和定量的粉末包覆形成較大的圓粒或在小圓粒噴上懸浮液或膜衣／腸衣材料之包覆。

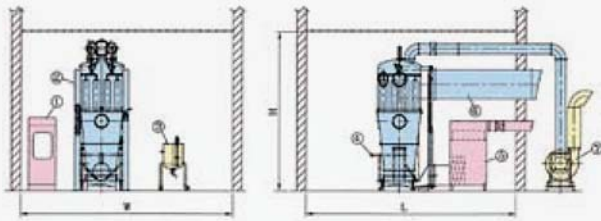


### FUNCTION +

- Top spray type:  
Drying wet granule or powder; granulation and drying of spraying binder on tiny powder.
- Bottom spray type :  
Spray suspension on pellet or film / enteric coating.
- Side spray type:  
Pellet powder coating; suspension coating or film / enteric coating.

### APPLICATION +

- Top spray type:
  - Pharmaceutical: granulating and drying of Chinese or Western medicine, Bio-tech products.
  - Instant food: granulating and drying for instant powder of health food; juice extract powder; meat extract powder; seasoning; lactic acid bacteria.
  - Chemical: drying of dye and synthesis raw material.
- Bottom & Side spray type:  
Produce pellet of medicine and health food.



- 1. Control Panel
- 2. Drying Body
- 3. Solution Tank
- 4. Trolley
- 5. Heater
- 6. Exhaust pipe
- 7. Centrifugal Fan

## 原理介紹 +

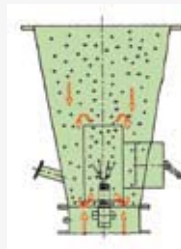
- **頂噴式**：利用吸風機將加熱並淨化後之空氣，抽送進入機體內，使機體內顆粒粉末產生均勻的浮動狀態，並配合一組濾袋防止粉末外漏，排放出蒸發水份，達到乾燥的目的，如另加一組噴槍時將黏合劑或主要成份（如：濃縮浸膏），利用噴槍霧化往下噴灑在均勻浮動狀態之粉末上，使粉末相互結合成顆粒後，乾燥至所須之含水量。
- **底噴式**：利用熱風氣流通過台車底部特殊設計的網子，產生虹吸原理，顆粒經由外圍進入中管內，使顆粒形成強烈由下向上浮動，在往下落的對流狀態，並利用放在底部的噴槍往上噴灑在均勻浮動的顆粒上，達到包覆及乾燥的效果。
- **側噴式**：將糖蕊做的核心放在旋轉盤上滾動，熱風從轉盤與造粒室之間隙向上吹，造成核心的翻滾，此時液劑經由泵浦及噴槍噴灑在均勻滾動的核心上，一邊噴霧包覆，並一邊乾燥，若要将粉末包覆在核心上，則要同時定量下粉，讓液劑將粉末黏合在核心外，而達到造粒、包覆及乾燥的效果。



頂噴式  
Top spray type

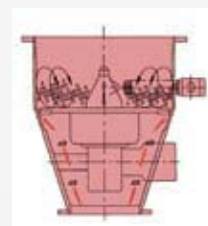
discharge the vaporated water to get drying purpose. If add one more spray gun can spray the binder or active ingredient downward into the uniform fluid powder, whenever the powder combined in granule, will be dried to get the required moisture content.

- **Bottom spray type:**  
When the hot air flows through the bottom screen of coating column, it will generate siphonal principle. Convection is created through the strong force the granule will be sucked into the coating column and floating from bottom toward top, then fall down again, the bottom spray gun will spray upward into the uniform fluid granule to get coating and drying purpose.



底噴式  
Bottom spray type

- **Side spray type:**  
Place the sugar cores on the turntable. Hot air is blown upward between turntable and granulation area. The air causes the cores to roll, the binder solution is sprayed on the rolling cores through the pump and spray gun, coating and drying simultaneously. If powder coating is required, the fixed volume powder will be sprayed at the same time let solution coating the powder on the cores to produce pellet and get coating and drying purpose. cores to roll, the binder solution is sprayed on the rolling cores through the pump and spray gun, coating and drying simultaneously.



側噴式  
Side spray type

If powder coating is required, the fixed volume powder will be sprayed at the same time let solution coating the powder on the cores to produce pellet and get coating and drying purpose.

## THEORY +

- **Top spray type:**  
Heated and purified air flows into the column by suction fan, the pellet or powder will be in uniform fluid condition inside the column, use one set of filter bag to prevent leak of powder,

## 規格表 | SPEC

型號 Model	台車全容積 Full Trolley Volume (L)	實際操作量 (KG) 依假比重:0.3計算	外型尺寸 Size (MM) (W/L/H)
YS-FD-2BG	7	0.5-2.0	2500X2500X2600
YS-FD-5BG	26	02-05	2500X3000X2600
YS-FD-60BG	180	20-60	4000X4000X3500
YS-FD-120BG	400	50-120	4000X4000X4000
YS-FD-200BG	650	60-200	4500X5000X5000
YS-FD-400BG	1300	100-400	5000X5000X6000
YS-FD-600BG	2000	200-600	6000X6000X7000

+

# 穿透式乾燥機

## THROUGH-CIRCULATION DRYER



### 原理介紹 +

將所要乾燥的產品，置放於一個鋪有透氣布的沖孔盤上，且將盤子放置可活動的台車，分成多層擺放，熱空氣經特殊導流設計，垂直方式穿透產品將水份帶走，而達到乾燥的目的。

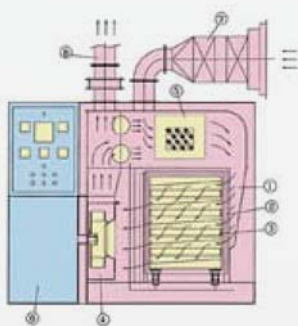
### 適用產業 +

西藥、中藥、生物科技、健康食品、化工產業之各種濕顆粒、粉末之乾燥。

### 功能 +

將含有水份的粉末、顆粒、細顆粒、長條顆粒、小圓粒...等，乾燥至所須之含水量。

### 流程圖 | FLOWCHART +



1. Drying Chamber
2. Drying Trolley
3. Drying Tray
4. Circulation Fan
5. Heat Exchanger
6. Control Panel
7. Fresh Air Inlet
8. Exhaust Damper

### THEORY +

The drying product is placed on the drying tray which are made of special screen or punched hole plate. The drying tray is placed in the active trolley which has several layers, hot air pierces into the product vertically and removes moisture by special guide flow design to get the drying purpose.

### APPLICATION +

Drying for pharmaceutical, Chinese herbal medicine, Health food, any kind of chemical wet granule and powder

### FUNCTION +

Drying for powder, granule, fine granule, long granule, pellet which contains moisture until get required content of moisture.

### 規格表 | SPEC

型號 Model	實際操作量 (KG) 依假比重0.4計算	外型尺寸 Size (MM) (W/L/H)
YS-TD-10	60-100	900X2200X1950
YS-TD-15	75-150	1200X3000X2250
YS-TD-20	100-200	1400X3200X2500
YS-TD-30	150-300	2200X3500X2500
YS-TD-40	200-400	2700X3500X2800



## 箱型乾燥機

## OVEN DRYER

### 原理介紹 +

將所要乾燥的產品,鋪放於一個盤子上,且將盤子放入可活動的台車,分成多層擺放,利用熱空氣將產品內水份帶走,而達到乾燥的目的。

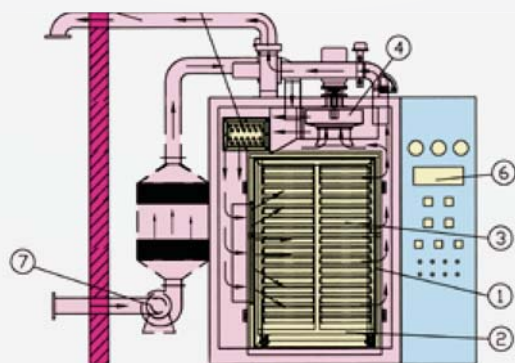
### 適用產業 +

西藥、中藥、生物科技、健康食品、化工產業之各種濕顆粒、粉末之乾燥。

### 功能 +

將含有水份的粉末,顆粒,細顆粒,長條顆粒,小圓粒...等,乾燥至所需之含水量。

### 流程圖 | FLOWCHART +



- |                    |                    |
|--------------------|--------------------|
| 1. Drying Chamber  | 5. Heat Exchanger  |
| 2. Drying Trolley  | 6. Control Panel   |
| 3. Drying Tray     | 7. Fresh Air Inlet |
| 4. Circulation Fan | 8. Exhaust Damper  |



### THEORY +

The drying product is placed on the drying tray which are made of special screen or punched hole plate. The drying tray is placed in the active trolley which has several layers, hot air pierces into the product vertically and removes moisture by special guide flow design to get the drying purpose.

### APPLICATION +

Drying for pharmaceutical, Chinese herbal medicine, bio-tech product, Health food, any kind of chemical wet granule and powder.

### FUNCTION +

Drying for powder, granule, fine granule, long granule, pellet which contains moisture until get required content of moisture.

### 規格表 | SPEC

型號 Model	實際操作量 (KG) 依假比重0.4計算	外型尺寸 Size (MM) (W/L/H)
YS-DO-1	60-100	800X2200X1950
YS-DO-2	75-150	800X3000X1950
YS-DO-3	100-200	800X3200X2200
YS-DO-4	150-300	1200X3500X2500
YS-DO-5	200-400	1200X3500X2800

# 錐型 粉碎機

## CONE MILL



已申請專利  
Patented



擠篩網  
Screen



錐形葉片  
Cone Impeller

### 原理介紹 +

利用錐形葉片快速旋轉，將原料打碎或切碎成比沖孔網更小之顆粒，然後向網外擠出，完成解碎或造粒之動作。

### 適用產業 +

適合用於西藥製劑、中藥製劑、健康食品、生物科技...等。

### THEORY +

Use high speed rotating blades to crush or grind the raw materials to desire size which is smaller than the punch hole, then extrude the granule toward outside of screen, to get the crushing or granulating purpose.

### FUNCTION +

Western medicine, chinese medicine, health food, bio-tech product.

### 規格表 | SPECIFICATION

型號 Model	產量 Capacity (KG)	外型尺寸 Size (MM) (W/L/H)
YS-CM-1	02-05	600X700X1300
YS-CM-3	40-80	800X900X1500
YS-CM-5	50-120	800X900X1600
YS-CM-10	80-200	600X2100X1650
YS-CM-15	150-300	700X2200X1700
YS-CM-20	200-400	800X2400X1800

# + 破碎型 粉碎機

## POWER MILL



已申請專利  
Patented

+



### 原理介紹 +

利用破碎刀快速旋轉，將原料打碎或切碎成比沖孔網更小之顆粒，然後向網外擠出，完成解碎或造粒之動作。

### 適用產業 +

適合用於西藥製劑、中藥製劑、健康食品、生物科技...等。

### THEORY +

Use high speed rotating blades to crush or grind the raw materials to desire size which is smaller than the punch hole, then extrude the granule toward outside of screen, to get the crushing or granulating purpose.

### FUNCTION +

Western medicine, chinese medicine, health food, bio-tech product.

### 規格表 | SPECIFICATION

型號 Model	產量 Capacity (KG)	外型尺寸 Size (MM) (W/L/H)
YS-PM-1	02-05	600X700X1300
YS-PM-3	40-80	800X900X1500
YS-PM-5	50-120	800X900X1600
YS-PM-10	80-200	600X2100X1650
YS-PM-15	150-300	700X2200X1700
YS-PM-20	200-400	800X2400X1800



# 雙軸整粒機

## DOUBLE -SHAFT DRY GRANULATOR



+

### THEORY +

Use two closed dry granulate claw to extrude the bigger and irregular granule toward outside of screen, then to form the required even granule.

### FEATURE +

- Multi-function for milling, wet & dry granulation.
- Simple structure is easy to assemble and clean.
- Easy for screen renewing and operating.
- Different adjustable speed for different requirement of product.
- Less dust, low temperature, low noise and easy cleaning.
- Can be integrated with vacuum suction device.
- Special closed shaft design to prevent the black spot and ensure product quality.
- Safety device to protect the operator.
- 360° screen design enables better and faster milling result, output capacity is bigger than other model.
- All the design and manufacture are qualified cGMP standard and FDA requirement.

### 原理介紹 +

利用兩支密閉式整粒爪，將較大且不規則顆粒壓過網子形成所須之均勻顆粒。

### 功能 +

- **解碎**：片劑及膠囊回收，或將結塊之粉末經刀片粉碎成原來的粉末。
- **粉碎**：將較硬、粗之原料粉碎粉末。
- **整粒**：將乾燥好之不規則顆粒，整粒成較均勻之顆粒。
- **濕式造粒**：加濕之粉末，擠出成顆粒。

### 適用產業 +

西藥、中藥製劑、健康食品、生物科技...等。

### 特點 +

- 粉碎、濕式造粒、乾式整粒融合一體。
- 構造簡單，分解清洗容易。
- 更換網子容易，操作簡單。
- 有不同的速度，供不同產品生產需求而調整。
- 低塵、低溫、低噪音、清洗容易。
- 可配合真空吸料中，粉碎整粒使用。
- 特殊轉軸密封設計，不產生污點，確保產品品質。
- 設計及製造均合乎cGMP規範及美國FDA要求。
- 附安全裝置，操作者可放心使用。
- 因造粒網360° 開放，比其他機型能力大。

### FUNCTION +

- **Crushing**: recover tablet and capsule, or crush the lump into original powder.
- **Milling**: mill the hard or thick raw materials into powder.
- **Dry granulation**: granulate irregular size of granule to even granule after drying.
- **Wet granulation**: granulate the wet powder into granule.

### 規格表 | SPECIFICATION

型號 Model	產量 Capacity (KG)	外型尺寸 Size (MM) (W/L/H)
YS-OG-2	80-200	700X850X1350

# 臥式 粉碎機

## FITZ MILL



### 規格表 | SPECIFICATION

型號 Model	產量 Capacity (Kg/Hr)	傳動馬達 Motor	外型尺寸 Size (MM) (W/L/H)
YS-FM-5	10-100	5 HP	1350X600X180
YS-FM-7	80-150	7 2/1 HP	1350X600X180

### 原理介紹 +

- 利用刀片快速旋轉，將原料打碎成或切碎成比沖孔網更小之顆粒。
- **速度**：可依不同材料而選擇不同速度。
- **沖孔網**：依不同用途選擇不同孔徑。

### 適用產業 +

適合用於西藥製劑、中藥製劑、健康食品、生物科技...等。

### 功能 +

- **粉碎**：將較粗之原料粉碎為細顆粒或粉末。
- **整粒**：將較大且不規則顆粒，整粒成較小且均勻之顆粒。

### 特點 +

- 特殊設計冷卻軸承之適合高速使用。
- 破碎刀以特殊不銹鋼製成，刀刃不易磨損。
- 附安全裝置，防止操作中受傷。
- 可配合真空送料裝置連線。

### THEORY +

- Using high speed rotating blades to crush or grind raw materials to a desired size which is smaller than the perforated plate screen.
- Speed is adjustable to suit different material.
- Perforated plate screen: mesh size can be selected to meet the processing requirements.

### FUNCTION +

- **Crushing**: crush raw material into small granule or powder.
- **Milling**: process larger and irregular granules into smaller and even size.

### FEATURE +

- Special bearing cooling system : for high-speed operation that prevents the high heat damaging the product .
- Suitable for dry and wet granules.
- The safety device will prevent the operator to get hurts.
- Discharge system : the vacuum suction device will be available to eliminate dust contamination. (Optional)

## Z 字型 混合機

## Z-SHAPED MIXER

### 原理介紹 +

混合桶為錐型容器的改良型，中間寬，上、下窄及出入口不對稱設計，桶內中間並附有一組固定的擋板，當混合機旋轉時產品上向下活動並因擋板而產生分合，因而達到混合的效果。

### THEORY +

The Z-shaped mixer is improved of cone tank, wide in the middle, narrow and unsymmetrical at both ends. Inside have baffles in the middle, when the mixer rotating the products are rolling from top toward bottom and hitting the middle baffles to get the best and efficient mixing result.



## V 字型 混合機

## V-SHAPED MIXER

### 原理介紹 +

混合桶由兩只圓柱形組成一V型混合桶，當混合桶旋轉時，造成產品，一分為二的方式，達到混合效果。

### THEORY +

V-shaped mixer is made of two column tanks, through rotating the granules and separating into two tanks, then two combine to one again, get the best and efficient mixing result.

### 功能 +

- 粉末混合：將不同種類的粉末原料混合達到所須之均勻度。
- 顆粒混合：將完成的顆粒添加潤滑劑、黏合劑、香料等之混合，將不同種類的顆粒粉混合達到所需之均勻度。

### 適用產業 +

適用於西藥製劑、中藥製劑、健康食品...等，相關之粉末、顆粒、添加潤滑劑、黏合劑、香料等之混合工程。

### 特點 +

- 構造簡單，操作容易。
- 清洗方便確實。
- 混合比可達1 / 10,000。
- 附安全欄杆及安全裝置。
- 可連接真空送料系統，經整粒設備，形成密閉性操作及自動化輸送功能。
- 設計和製造均合乎cGMP規範及美國FDA要求。

### APPLICATION +

Apply for mixing powder, granule, lubricant additive, binder, essence oil of flavor of Western medicine, Chinese medicine and health food.

### FUNCTION +

**Powder mixing:** Mix different kind of powder materials to required uniformity.

**Granule mixing:**

- Mix the granules with lubricant, binder or essence oil of flavor.
- Mix different kind of granules to required uniformity.

### FEATURE +

- Convenient and precise for cleaning.
- Mixing ratio up to 1 / 10,000.
- With safety railing and interlock device.

### 規格表 | SPECIFICATION

型號 Model	工作容積 Work Volume (L)	產量 (KG/HR) 依假比重0.6計算	外型尺寸 Size (MM) (W/L/H)
YS-20	08-12	05-08	860X930X1310
YS-100	40-60	24-36	1320X1400X1650
YS-300	80-120	70-110	1800X1850X2500
YS-600	240-360	140-210	2000X2050X2500
YS-1000	400-600	240-360	2340X2400X3030
YS-1500	600-900	360-540	2800X2900X3200
YS-2000	800-1200	480-720	3200X3500X3700

## 八角型 混合機

## TUMBLING MIXER

### 原理介紹 +

混合桶為八角型，雙側為錐型設計，且在每一邊的正焊有一片擋板，使粉粒在迴轉時隨擋板的角而彎曲滑動，達到混合效果。

### THEORY +

The eight angles shaped tumbler has baffle on each side. The granules are twisted flowing along the angle of baffles and mixed again by the center shaft baffles to get the best and efficient mixing result.



## 雙錐型 混合機

## DOUBLE CONE MIXER

### 原理介紹 +

混合桶為錐型容器，中間寬，上、下窄設計，桶內中間並附有一組固定的擋板，當混合機旋轉時產品上向下活動並因擋板而產生分合，因而達到混合的效果。

### THEORY +

The cone shaped mixer is wide in the middle and narrow at both ends. Inside have baffles in the middle, when the mixer rotating the product is rolling from top toward bottom and hitting the middle baffles to get perfect mixing result.

### 功能 +

- 粉末混合：將不同種類的粉末原料混合達到所須之均勻度。
- 顆粒混合：將完成的顆粒添加潤滑劑、黏合劑、香料等之混合，將不同種類的顆粒粉混合達到所需之均勻度。

### 適用產業 +

適用於西藥製劑、中藥製劑、健康食品...等，相關之粉末、顆粒、添加潤滑劑、黏合劑、香料等之混合工程。

### 特點 +

- 構造簡單，操作容易。
- 清洗方便確實。
- 混合比可達1 / 10,000。
- 附安全欄杆及安全裝置。
- 可連接真空送料系統，經整粒設備，形成密閉性操作及自動化輸送功能。
- 設計和製造均合乎cGMP規範及美國FDA要求。

### APPLICATION +

Apply for mixing powder, granule, lubricant additive, binder, essence oil of flavor of Western medicine, Chinese medicine and health food.

### FUNCTION +

**Powder mixing:** Mix different kind of powder materials to required uniformity.

**Granule mixing:**

- Mix the granules with lubricant, binder or essence oil of flavor.
- Mix different kind of granules to required uniformity.

### FEATURE +

- Convenient and precise for cleaning.
- Mixing ratio up to 1 / 10,000.
- With safety railing and interlock device.

### 規格表 | SPECIFICATION

型號 Model	工作容積 Work Volume (L)	產量(KG) 依假比重:0.6計算	外型尺寸 Size (MM) (W/L/H)
YS-20	08-12	05-08	860X930X1310
YS-100	40-60	24-36	1320X1400X1650
YS-300	80-120	70-110	1800X1850X2500
YS-600	240-360	140-210	2000X2050X2500
YS-1000	400-600	240-360	2340X2400X3030
YS-1500	600-900	360-540	2800X2900X3200
YS-2000	800-1200	480-720	3200X3500X3700



+

## 真空 輸送裝置

## VACUUM SUCTION DEVICE

### 原理介紹 +

顆粒直接由容器藉由真空泵浦之吸力，將顆粒、粉末經由輸送管，吸入混合機內，微粉由一個衛生級集塵機收集，是一個沒有粉塵、省力、省工、零污染的設備。

### 功能 +

顆粒、粉末由流動層乾燥機之台車內吸出，通過整粒機，將整粒後之顆粒直接傳送到混合機內。

### 適用產業 +

藥品、食品、化工、陶瓷、飼料、顏料、染料、農產品。

### 特點 +

- 減少人工。
- 降低粉塵。
- 操作簡單。
- 避免污染。
- 可在整粒後直接吸料至混合機內。

### THEORY +

Granules or powder are sucked directly from container into mixing machine through conveyor pipe by vacuum. The free powder are collected by sanitary grade dust collection device. It is a device with dust-free, effort-saving, manpower-saving and non-contamination.

### FUNCTION +

Granules or powder are sucked from container of Fluid bed dryer to granulator. The granules after granulation can be conveyed to mixing machine directly.

### APPLICATION +

Pharmaceutical, food, chemical industry, ceramics, fodder, pigments, dyes, agriculture

### FEATURES +

- Reduse dust
- Easy to operation
- Avoid contamination
- saving manpower

### 規格表 | SPECIFICATION

型號 Model	顆粒吸料能力 Capacity (KG/HR)
YS-VSD-1	100-200
YS-VSD-2	200-400



已申請專利  
Patented

## 台車 翻轉裝置

### LIFTING DEVICE



#### 原理介紹 +

- **升降**：以油壓缸動作，提升料桶，可自動定位。
- **翻轉**：以減速機轉動，可旋轉180°自動定位。
- **機座旋轉**：可手動方式轉90°。

#### 功能 +

- 配合流動層造粒/乾燥機的排料。
- 各種料桶的提升及給料。
- 打錠機、膠囊充填機、膜衣機等設備之入料。

#### 適用產業 +

藥品、食品、化工、飼料、農產品。

#### 特點 +

- 讓粉末、顆粒、藥錠下料自動化。
- 線控操作，操作簡單，清洗容易。
- 密閉操作，減少粉塵。
- 可與整粒機做連結，連結下料節省人力，減少粉塵。
- 可以加選自動給料裝置。

#### THEORY +

- **Lift**: lifting drums by hydraulic cylinder, can be positioned automatically.
- **Flip**: Can be rotated by reducer, and can be 180° positioned automatically.
- **Machine platform rotation**: Can be 90° rotated manually.

#### FUNCTION +

- For Fluid bed dryer/granulator discharge use.
- For drums lifting and feeding.
- For feeding into tablet pressing machine, capsule filling machine, coating machine, etc.

#### APPLICATION +

Pharmaceutical, cosmetic, agriculture, health food or bio-tech products.

#### FEATURES +

- Let powder, granule, and tablet feeding automatically.
- Operation by wire, easy to use and clean.
- Closed operation, reduce dust.
- Can be connected with cone mill, save manpower.

#### 規格表 | SPECIFICATION

型號 Model	角度 Angle	旋轉角度 Rotating	舉起重量 Lifting capacity (KG)	舉起高度 Lifting height (MM)
YS-LS-60	180	90	60	1200~2000
YS-LS-100	180	90	100	1200~2000
YS-LS-150	180	90	150	1300~2000
YS-LS-200	180	90	200	1400~2000
YS-LS-300	180	90	300	1500~2000



已申請專利  
Patented

## 自動快速 膜衣 / 糖衣機

### SUPER COATER

+

#### 原理介紹 +

利用熱風氣流通過一只特殊設計的膜衣，使裡面的均勻翻滾的錠劑受熱，此時液劑經PUMP由噴槍往下噴灑在滾動的錠劑上，達到包覆及乾燥的效果。

#### 功能 +

- **膜衣**：在片劑上噴一層薄薄的保護層（可用於水性及有機溶劑）。
- **腸衣**：在片劑上噴一層能通過胃酸的腸衣錠。
- **糖衣**：於片劑上包覆厚厚的糖衣來保護片劑。

#### 適用產業 +

- **藥品**：西藥之膜衣、腸衣、糖衣、釋放性包衣、中藥之膜衣。
- **食品**：- 膜衣：農產品、冰糖、健康食品。  
- 糖衣：口香糖、健素糖、健康食品。
- **種子**：加保護膜或營養劑。

#### 特點 +

- 同一機台可使用膜衣、糖衣。
- 透氣式設計：乾燥效率高。
- 操作時間短：
  - 膜衣：1 ~ 3 hr/batch。
  - 腸衣：3 ~ 4 hr/batch。
  - 糖衣：6 ~ 16 hr/batch。
- 全程PLC全自動控制，操作簡單。
- 糖衣功能部份採用全自動設計，操作簡單，不需高技術也能操作自如，糖漿與固型物全部調和在一起，全自動定量定時，操作簡易。
- 糖衣包覆完成，著色均勻，重量偏差小，外表亮麗。
- 糖衣製程約6 ~ 16 hr/batch可完成一批。





換桶式  
Change pan type

## THEORY +

Hot airflow pass through a special designed film, heat the uniform rolling tablets inside, spray solution downward on the rolling tablet through pump and spray gun to get coating and drying purpose.

## FUNCTION +

- Film coating: Spray one thin protection layer on the surface of tablet (used in aqueous or organicsolvent ).
- Enteric coating: Spray one protection layer on the surface of tablet to against stomach acid.
- Sugar coating: Multi-layers of sugar coated to protect the tablet.

## APPLICATION +

Pharmaceutical:

- Western medicine: film coating, enteric coating, sugar coating, control released coating.
- Chinese medicine: film coating.

Food:

- Film coating: agriculture products, crystal sugar health food.
- Sugar coating: chewing gun, yeast candy, health food.

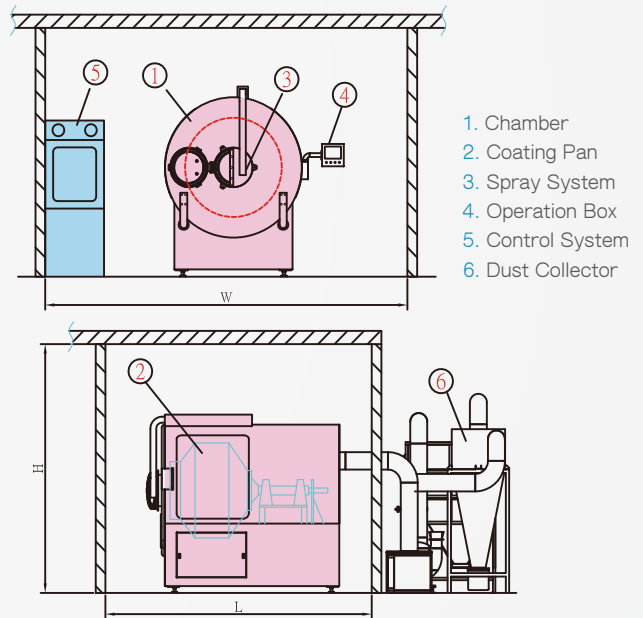
Seed:

- Protection layer coating or add nutrition.

## FEATURE +

- Film and sugar coating are in one machine.
- Punched hole pan design for efficient drying.
- Short operation time:
  - Film coating: 1 ~ 3 hr/batch.
  - Enteric coating: 3 ~ 4 hr/batch.
  - Sugar coating: 6 ~ 16 hr/batch.
- Explosion proof system is available for organic solvent process.
- Auto discharge system for easy discharge.
- Auto control design for sugar coating, even no experienced operator can easy operate also. Well mixed sugar syrup, automatic fixed amount and fixed time, easy operation.
- Uniform coloring, weight and smooth surface for sugar coating.
- Operation time about 6 ~ 16 hr/batch of sugar coating.

## 流程圖 | FLOWCHART +



## 規格表 | SPECIFICATION

型號 Model	桶身直徑 Diameter Tank (CM)	產量 (KG/HR) 依假比重.0.3計算	外型尺寸 Size (MM) (W/L/H)
YS-FC-40F	40	02-05	2500X3000X2100
YS-FC-80F	80	15-45	3000X3500X2300
YS-FC-100F	100	30-80	4000X4000X2500
YS-FC-125F	125	75-150	4500X4500X2800
YS-FC-150F	150	120-250	5000X5000X3000
YS-FC-175F	175	200-400	5000X5500X3200
YS-FC-200F	200	300-600	6000X6000X3700





# 遠心造粒 包衣機

## CENTRIFUGAL GRANULATOR / COATER

### 原理介紹 +

將糖蕊做的核心放在旋轉盤上滾動，熱風從轉盤與造粒室之間隙向上吹，造成核心的翻滾，此時液劑經泵浦及噴槍噴灑在均勻滾動的核心上，一邊噴霧包覆，並一邊乾燥，若要將粉末包覆在核心上，則要同時定量下粉，讓液劑將粉末黏合在核心外，進而達到造粒、包覆及乾燥的效果。

### 功能 +

- **粉末包覆造粒**：將細顆粒或糖蕊當核心，邊噴上黏合劑，邊定量下粉，利用黏合劑將粉末黏合在細顆粒及糖蕊上，包覆成較大的圓粒。
- **懸浮液包覆**：將主成份與黏合一起調製成液劑，再將液劑噴在小圓粒上，包覆成較大圓粒。
- **膜衣包覆**：將造好的圓粒外表再噴上層膜衣或腸衣。

### 適用產業 +

藥品、化妝品、農產品、健康食品、生物科技的小圓粒之造粒及外表包覆

### THEORY +

Place the sugar cores on the turntable. Hot air is blown upward between turntable and granulation area. The air causes the cores to roll, the binder solution is sprayed on the rolling cores through the pump and spray gun, coating and drying simultaneously. If powder coating is required, the fixed volume powder will be sprayed at the same time let solution to coat the powder on the cores, to produce pellet and get coating and drying purpose.

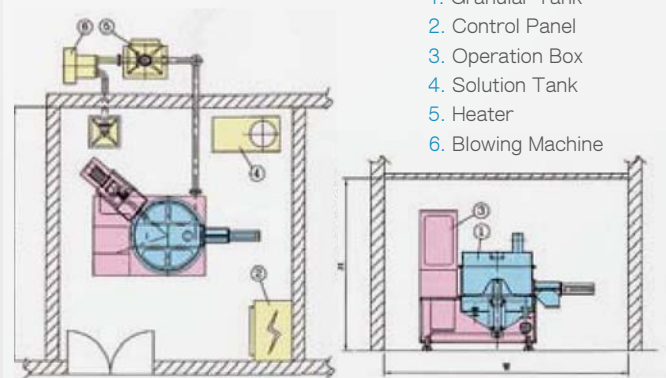
### FUNCTION +

- Powder coating: Binder and powder are sprayed on the tiny granule or sugar to form a bigger pellet.
- Suspension coating: Mixed the active ingredients with binder into solution, spray solution on the smaller pellet to become a bigger pellet.
- Film coating: Spray film / enteric coating on the granulated pellet.

### APPLICATION +

Pharmaceutical, cosmetic, agriculture, health food or bio-tech products.

### 流程圖 | FLOWCHART +



### 規格表 | SPECIFICATION

型號 Model	桶身直徑 Diameter Tank (CM)	實際操作量 Working Batch (KG)	外型尺寸 Size (MM) (W/L/H)
CG-35	35	01-02	2500X2500X2100
CG-75	75	15-30	3000X3000X2300
CG-100	100	30-50	4000X4000X2700
CG-125	125	50-100	5000X5000X3000



INORA

生技、中草藥  
生產設備

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BIO-TECH / CHINESE  
HERBAL MEDICINE  
EQUIPMENT



## 萃取設備

## EXTRACTION EQUIPMENT

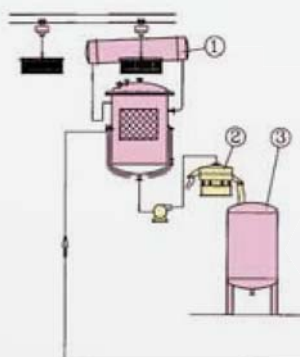
### 功能 +

將中草藥材置於沖孔網製的藥籃內，利用吊車放入桶槽內，再利用蒸汽或其他熱源蒸煮。再將天然草藥中有效成份，利用水及酒精萃取出來。

### 適用產業 +

科學中草藥、生物科技、健康食品之水及酒精萃取。

### 流程圖 | FLOWCHART +



1. Extraction Equipment
2. Residue Separator
3. Solution Tank

### THEORY +

The herbs are loaded in the punched hole screen basket and lifted and loaded by crane into the tank, use steam or other heat source to boil, then get into a storage tank after filtering.

The low-temperature concentrator which designed of vacuum theory will evaporate and cool the residual water and alcohol to alcohol water, finally be recovered and used again by distiller.

### APPLICATION +

Extraction of Chinese herbal medicine, Bio-tech product, Health food, which use of water and alcohol.

### FUNCTION +

Use water and alcohol to extract efficient ingredient from natural herbs, then remove and recover residual water and alcohol, preserve the solid materials.

### 規格表 | SPECIFICATION

型號 Model	全容積 Full Volume (L)	工作容量 Work Volume (L)
YS-EC-120	120	60-100
YS-EC-600	600	400-500
YS-EC-1200	1200	600-1000
YS-EC-2500	2500	1200-2000
YS-EC-3500	3500	1500-3000
YS-EC-5000	5000	2000-4000

# 濃縮設備

## VACUUM CONCENTRATION EQUIPMENT



### 功能 +

利用一台真空原理設計的低溫濃縮機將不要的水和酒精蒸發及冷凝成酒精水，留下所要的固型物。

### 適用產業 +

- + 科學中草藥、生物科技、健康食品之水及酒精萃取。

### THEORY +

The herbs are loaded in the punched hole screen basket and lifted and loaded by crane into the tank, use steam or other heat source to boil, then get into a storage tank after filtering.

The low-temperature concentrator which designed of vacuum theory will evaporate and cool the residual water and alcohol to alcohol water, finally be recovered and used again by distiller.

### APPLICATION +

Extraction of Chinese herbal medicine, Bio-tech product, Health food, which use of water and alcohol.

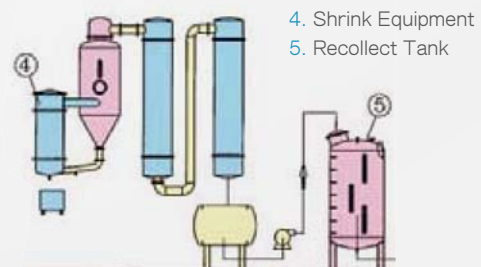
### FUNCTION +

Use water and alcohol to extract efficient ingredient from natural herbs, then remove and recover residual water and alcohol, preserve the solid materials.

### 規格表 | SPECIFICATION

型號 Model	產量 Capacity (L / HR)
YS-VC-30	24-30
YS-VC-100	80-1000
YS-VC-300	250-300
YS-VC-600	500-600
YS-VC-1200	1000-1200
YS-VC-1500	1200-1500

### 流程圖 | FLOWCHART +



# 酒精蒸餾塔

## ALCOHOL DISTILLER TOWER

+

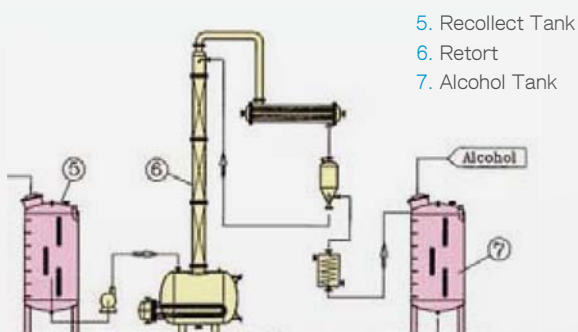
### 特點 +

1. 蒸餾塔回收酒精再利用，降低成本，兼可做環保。
2. 可用於食用或飲料用酒精的蒸餾，亦可用於酒精生質能源的蒸餾，以提高酒精濃度，降低水含量。
3. 利用沸點較高的物質以液體狀態於塔底排出，以達到混合物物質分離的效果。

### APPLICATION +

1. This equipment divides into intermission and continuous type. It is consist of distilling kettle, distilling tower body, condenser, buffer tank, flowmeter.
2. Alcohol be recovered and used again by distiller, can reduce cost and protect environment.
3. Continuous type with a pre-heater can be carried out continuous production line with high-volume production needs.
4. It can distill the weak alcohol which purity is lower than 30% purify to 90-95% and the surplus residue alcohol purity 3%.
5. To be equipped with PLC control system and control the parameter of temperature, flux, purity to enhance the production efficiency automatically.

### 流程圖 | FLOWCHART +



### 規格表 | SPECIFICATION

蒸餾型號 Distillation Type	產量 Capacity (L / HR)
YS-AR-30	20-30
YS-AR-100	80-100
YS-AR-200	160-200
YS-AR-500	400-500
YS-AR-800	700-800
YS-AR-1000	800-1000



UL 認證  
UL certified

## 調製 儲存桶

## MIXING TANK / STORAGE TANK

### 適用產業 +

中藥、西藥、生物科技、健康食品、食品、  
化工產業。

### 特點 +

- 均採用不鏽鋼SUS304及316製造。
- 容量大小可依需求訂製。
- 和產品接觸部份均拋光至0.1 - 0.2 Ra 以上。
- 設計和製造均合乎cGMP規範及美國FDA要求。

### APPLICATION +

Chinese medicine, western medicine, bio-tech  
product, health food, food, chemical industry.

### FEATURE +

- Use SUS#304 and 316 stainless steel.
- The size of volume is according to customer requirement.
- The surface contacts directly with product is polished over than 0.1 0.2 Ra.
- All the design and manufacture are qualified cGMP standard and FDA requirement.



# + 噴霧 乾燥機

## SPRAY DRYER



### 原理介紹 +

利用抽風機以及送風機將加熱並淨化後之空氣，送入機體內，另一組高速旋轉噴霧頭將PUMP送入的溶液、糊狀液，霧化成極小水珠，相互結合熱氣瞬間將液體中的水份蒸發帶走，原有的固型成份經收集器取得，達到直接乾燥的目的。

### 適用產業 +

科學中藥濃縮製劑、食品肉精粉、果汁粉、奶粉及化工原料生產。

### 功能 +

將溶液、糊狀液的原料直接乾燥去除水份成細粉。

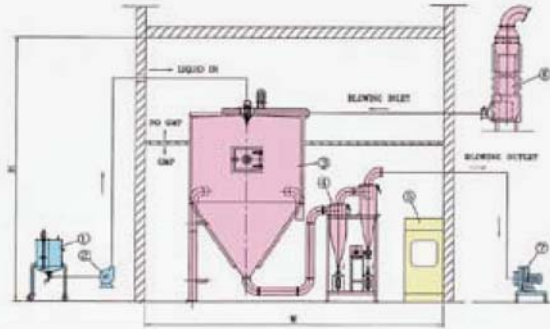
### 特點 +

- 將溶液、糊狀液的原料直接乾燥成細粉，填加物少。
- 乾燥後不會改變原物料之本質。
- 高濃度及高黏度液體也可乾燥。
- 瞬間乾燥，乾燥時間短。
- 對熱敏感之原料，可保持原料之色、香、味。
- 風量控制採用比例式自動風門控制。
- 控制系統PLC自動控制，亦可選購人機介面控制，操作方便。
- 如有使用有機溶劑可贈購防爆裝置，確保安全性。
- 可因產品特性不同，加裝各項選擇配備，如溫度記錄器、自動清洗系統、除濕裝置...等。
- 設計和製造均合乎cGMP規範及美國FDA要求。

### THEORY +

Heated and purified air flows into the column through exhaust and suction fan, use one set of fast rotating spray nozzle to atomize the solution or paste liquid which sent by pump into very small drop, the drop will combine with heated air and moisture be evaporated to get drying purpose. The original solid ingredient will be collected by collector.

## 流程圖 | FLOWCHART +



- |                   |                    |
|-------------------|--------------------|
| 1. Solution Tank  | 5. Control Panel   |
| 2. Pump           | 6. Heater          |
| 3. Granual Body   | 7. Blowing Machine |
| 4. Dirt Collector |                    |

## APPLICATION +

Chinese herbal medicine, meat seasoning, fruit favored powder, milk powder, chemical raw materials.

- CIP auto cleaning system
- Dehumidifier facility
- All the design and manufacture are qualified cGMP standard and FDA requirement.

## FUNCTION +

Dry into powder from the solution or paste liquid.

## FEATURE +

- Dry into powder from the solution or paste liquid.
- The original essence of material will not be changed after drying.
- Able to dry high viscosity and concentration liquid.
- Instant dry, short drying time.
- Even for hot sensitive materials, also can retain original color, favor and smell.
- Air volume control is proportional by automatic air gate.
- PLC auto control system or touch screen interface for easy operation.
- Explosion proof system is available for organic solvent process.
- Optional equipment for different product feature.
- Temperature recorder



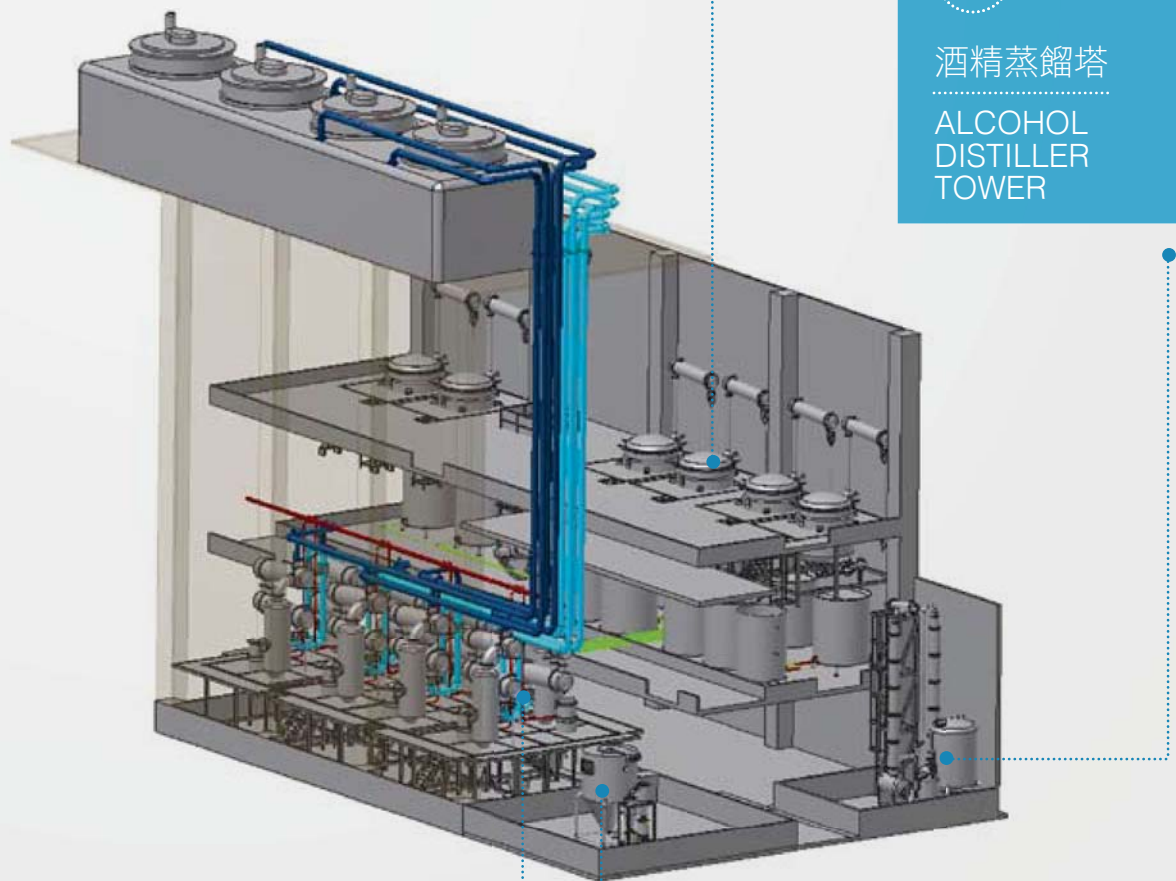
## 規格表 | SPEC

型號 Model	桶身直徑 Diameter of Tank (MM)	產量(L/HR) 依噴霧入水量計算	室內配置尺寸 Size (MM) (W/L/H)
YS-SD-2	800	01-02	2500X3000X2500
YS-SD-5	900	02-05	3000X3500X3000
YS-SD-10	1200	06-10	4000X4000X3500
YS-SD-15	1400	10-15	4500X4500X4000
YS-SD-20	1500	12-20	5000X5000X4500
YS-SD-30	1750	20-30	5000X5500X6000
YS-SD-50	2000	30-50	6000X6000X7000

+

# 萃取濃縮流程圖

## PRODUCTION PROCESS FLOW CHART



4

萃取設備

EXTRACTION  
EQUIPMENT

1

酒精蒸餾塔

ALCOHOL  
DISTILLER  
TOWER

3

濃縮設備

VACUUM  
CONCENTRATION  
EQUIPMENT

2

噴霧乾燥機

SPRAY  
DRYER

# INORA

無菌製劑  
生產設備

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STERILE  
INJECTING  
EQUIPMENT





## 半自動迴轉式洗瓶機

## SEMI-AUTOMATIC ROTARY BOTTLE WASHING MACHINE

### 適用產業 +

- 藥品、食品之玻璃瓶或塑膠瓶的清洗。
- 清洗較多種類及較少量之瓶罐。

### 特點 +

- 設備體積小，不佔空間。
- 置瓶為手動，其餘清洗為自動。
- 更換模具容易，所以可適用多種瓶子。
- 自來水系統可回收使用節省能源(選配)。
- 操作簡單。
- 洗瓶速度可調整。

### 清洗程序 +

一般自來水→純水→AIR (可以有不同的選擇)

### APPLICATION +

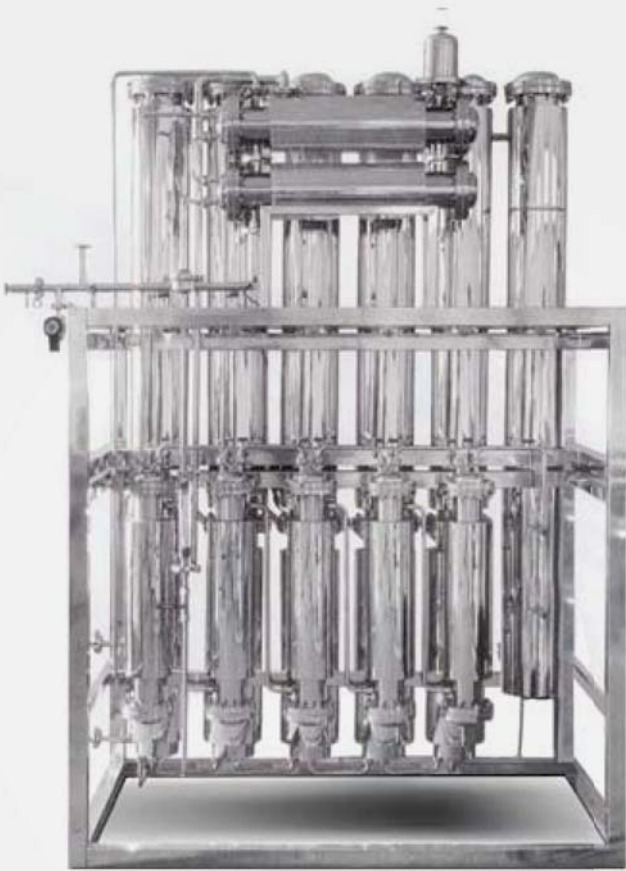
Glass or plastic bottles washing for pharmaceutical、food industry. Washing bottles of various sizes and small capacity

### FUNCTION +

- Equipment is compact, space saving.
- Whole washing process is automatic except manually locate bottles.
- Easy Mould changing to suit various size of bottles.
- Recycling of city water system for energy saving. (Optional)
- Simple operation.
- Adjustable washing speed.

### 規格表 | SPECIFICATION

型號 Model	瓶身大小 Bottle Size(c.c)	產量 Capacity (Bottle/HR)
YS-BW-18A	10c.c.~120c.c.	1200~2000
YS-BW-18B	100c.c.~500c.c.	1000~1500



## 多效式蒸餾水機

## MULTI-FUNCTION WATER DISTILLER

### 特點 +

1. 衛生焊接等級：內外拋光為0.1 - 0.2Ra 以上。
2. 水/蒸氣分離設計：降低蒸餾水污染。
3. 可使用蒸餾水及純水。
4. 注水接觸面為不鏽鋼SUS316L 等級。
5. 蒸餾溫度可達100°C 以上，可防止細菌產生。
6. 所有的設計均符合世界安全壓力容器標準。
7. 本設備設計主要以符合 FDA 注射劑用水 (WFI)之規範。
8. 依照供給水之來源水質及不同之效應數,使蒸餾液水質可達注射液之標準。

### FEATURE +

1. Sanitary welding grade: polishing inner and outer for above 0.1 – 0.2 Ra polish.
2. Water/vapor separable design to prevent non-qualified vapor to contaminate the distilled water
3. Distilled water and pure water can be used.
4. Machine contacting feed-water part all using SUS 316L stainless steel ,320-400# grit polish.
5. Double tube sheet design, free from cooling water contamination into distillations by glass fiber.



純蒸氣產生機

6. The distillate temperature is over 80°C to avoid bacteria growing.
7. All designs are according to the world safety pressure vessel standard.
8. This still designed to meet to FDA specification of Water For Injection.



+

### 適用產業 +

製藥工業、食品工業、醫院、實驗室、生物科技、學校。

### 功能 +

滅菌機通常置於洗滌室與無菌室間，當被滅菌物在密閉的滅菌室中，由蒸汽提供的高溫及足夠的時間而將微生物殺死，可獲得安全可靠的產品或器具。

### 特點 +

- 油壓門：利用油壓來帶動Clamp將門打開、密閉，操作省力、輕鬆。
- 蒸汽管路：採用衛生配管，並通過1只 $1\mu\text{m}$ 的蒸汽過濾器，使滅菌的蒸汽品質維持在最佳品質。
- 溫度分佈均勻：藉著真空泵浦的排氣及適當蒸汽的進入，可使滅菌室達到 $\pm 1^\circ\text{C}$ 的滅菌溫度。
- 全自動控制：採用PLC控制，當條件設定後，即可作全自動的全程控制。

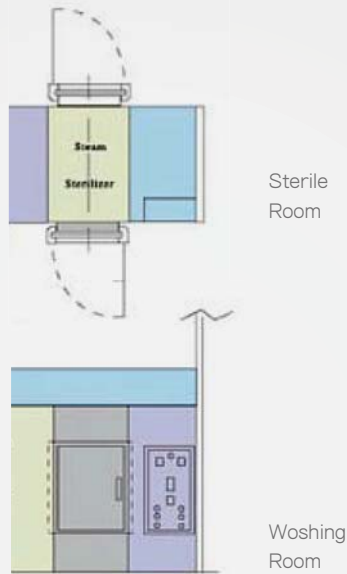
## 高壓 滅菌機

## STEAM STERILIZER

+

- 溫度記錄器：可確實的記錄滅菌室各位置的溫度分布狀況及熱滲透的情況。
- 專用測試孔：附有Validation專用測試孔，方便測試人員測試。
- 與電腦連線：可直接在鍵盤與螢幕上作設定、控制與記錄，監控操作更方便，並可直接算出F0值以確保一百萬個被滅菌體中不超過一個細菌活存。
- 三機一體：可與自動冷卻、真空洩漏試驗相結合，成為三機一點，省時、省力、省空間。
- 提供所有儀器的SENSOR之原始Calibration記錄。

## 流程圖 | FLOWCHART



## APPLICATION +

Pharmaceutical、Food、Hospital、Research Laboratory

## FUNCTION +

The sterilizer is commonly located between the washing room and sterilization room. The extermination of germs and micro-organisms can be achieved when the object for sterilizing is in the contained sterilization room with an essential high temperature and sufficient time; and therefore safer and more reliable products or instruments can be obtained.

## FEATURE +

- Oil hydraulic door: the door clamping device uses an oil hydraulic cylinder to drive clamp for easier and contained operation.
- Steam piping: steam piping fitting is made of sanitary pipe. The steam passes through one micro pre-filter 1  $\mu$  m
- Even steam distribution: by vacuum pump and entrance of steam into sterilization room during sterilization to achieve  $\pm 1$  sterilization temperature.
- Fully automatic control: Adopt PLC control system, when the conditions have been set, the process will be controlled automatically.
- Temperature recorder: records the temperature progress distribution completely and record pressure changes throughout whole sterilization process.
- Inspection hole: validation testing holes are available for inspection.
- Computerized Operation: the computer can calculate the FO figure and shows that there is no more than one germ alive in one million of sterilized objects.
- Three functions in one: integrated sterilization, cooling and leakage test to save time, energy, space and labor.
- Provide complete original record of sensors and calibration of all instruments.

## 規格表 | SPECIFICATION

型號 Model	Volume (L)	Chamber size (WxHxD)	Dimensions (WxLxH)	Steam Consumption (kg/Hr)	Vacuum Pump (HP)	Weight (kg)
YS-SS-041	96	400X400X600	700X1300X900	60	1	1000
YS-SS-061	360	600X600X1000	1000X1300X1300	100	2	1500
YS-SS-081	800	800X1000X1000	1200X1700X1300	130	3	2000
YS-SS-101	1440	1000X1200X1200	1400X1900X1500	200	3	3000
YS-SS-102	2400	1000X1200X2000	1400X1900X2300	280	5	4000
YS-SS-121	1872	1200X1300X1200	1600X2050X1500	240	3	3500
YS-SS-122	3120	1200X1300X2000	1600X2050X2300	350	7 1/2	5000
YS-SS-141	2680	1400X1600X1200	2000X2350X1500	310	5	4500
YS-SS-142	4480	1400X1600X2000	2000X2350X2300	415	10	6000
YS-SS-143	8060	1400X1600X3600	2000X2350X3900	630	15	9000

+



+

# 熱風滅菌機

## HOT AIR STERILIZER

### THEORY +

Hot air sterilizer is applicable for sterilizing instruments which can tolerate high temperature and needs to remain in sterilized condition. Under the same temperature, hot air sterilization needs a higher temperature to kill germs and micro-organism than saturated vapor sterilization.

### APPLICATION +

Sterilization of Vial, Ampoule and stainless steel instrument.

### FEATURE +

- Safety sterilized welding: sterilization chamber is welded using stainless steel SUS304 to avoid contamination from the insulation material after long use.
- Complete contained: during the process of sterilization and when the sterilizer is off, the dampers are always tightly closed to ensure the sterilizing chamber is in a contained condition.
- High efficiency filter : the absolute Heap Filter 99.97%, this filter can tolerate temperature above 350°C and filter particles below 0.3 Mirco.

### 原理介紹 +

乾熱滅菌法適用於能耐高溫且需乾燥的物品之滅菌，常用於玻璃瓶及不銹鋼器具之滅菌。在相同溫度下，乾熱較飽和蒸汽對微生物之致死率低，因而乾熱滅菌需較高之溫度及較長的時間。

### 適用產業 +

玻璃瓶及不銹鋼器具之滅菌

### 特點 +

- 滅菌室全週焊:滅菌室以不銹鋼SUS304全週焊接製成，可避免保溫材在長久熱漲冷縮後由間隙進入滅菌室，造成污染。
- 風門完全密閉:自動風門在滅菌行程與關機後均保持密閉狀態，可確保滅菌室的絕對密閉。
- 高效率過濾器:採用耐高溫350°C以上之高效率過濾器99.97%可過濾至0.3Mirco之微粒。
- 溫度分佈均勻:滅菌室二旁設有風量調節板，可以使滅菌室得到均勻的溫度分佈。
- 附專測試孔:留有DOP測試孔及Validation專用孔，可方便測試人員之操作。
- 溫度記錄器:可完整錄下滅菌過程之溫度分佈。
- 提供所有儀器的Sensor之原始Calibration記錄。

### 流程圖 | FLOWCHART



Washing Room

### 規格表 | SPECIFICATION

型號 Model	Chamber Size (MM) (WXLXH)	Overall Dimensions (KG) (WXLXH)	Maximum Temperature (C)	Ampoule 10CC (P.C.S BATCH)	Vial 10CC (P.C.S BATCH)	Vial 20CC (P.C.S BATCH)	Vial 100CC (P.C.S BATCH)
YS-DHS-1	810X1100X1000	1600X2500X1300	280	10000	11000	5300	1500
YS-DHS-2	1600X1500X800	2600X2880X1100	280	18000	19000	9900	300
YS-DHS-3	1600X1500X1330	2600X2880X1630	280	27000	28000	13000	5000



## 無菌無塵 手套操作箱

## MIXING ISOLATOR

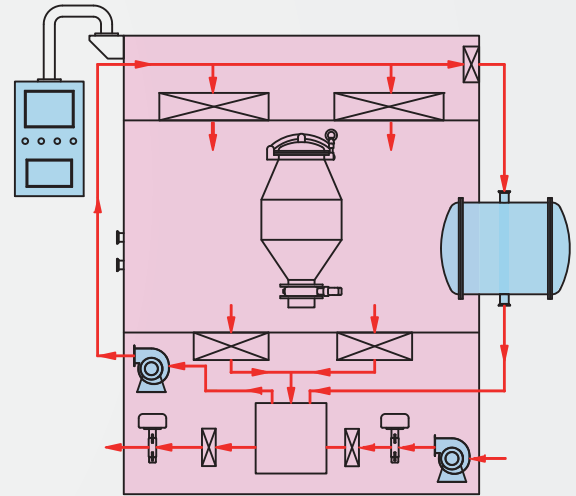
### 特點 +

- 處理污染物以及Drybox或相關磊晶設備所使用
- 高靈活性、手巧和可觸知性
- 優秀彈性，保護免受風險撕毀
- 手套材質由高化工低抗和礦物所製成，讓表面光滑不會殘留，抗腐蝕
- 品質優良，耐久度高
- PLC 人機介面操作
- 可數據紀錄（溫度、濕度、壓力及風速）並可異地列印
- 正面可掀起，方便清潔及設備進出
- 前方掀門為安全玻璃，以充氣墊圈密合
- 符合PIC/S cGMP規範

## FEATURE +

- Glove recommended for polluting handling with high mechanical and chemical risks.
- Recommended for pharmaceutical and electronics industries, chemical and medical research.
- High flexibility, dexterity and tactility.
- Excellent chemical resistance to mineral and organic acids, alcohols, oils, lubricants and hydrocarbons.
- Operating temperature range : -30°C to +50°C
- Dipped in 100% neoprene.
- PLC automated control system
- Interlocks on inlet/outlet doors.
- Inlet/ outlet HEPA filters.
- All the design and manufacture are qualified PIC/S cGMP standard and FDA requirement.

## 流程圖 | FLOWCHART +





已申請專利  
Patented

# 真空乳化 攪拌機

## VACUUM HOMOGENEOUS MIXER

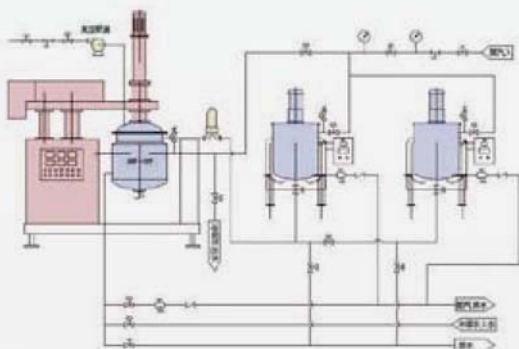
### 適用產業 +

- 藥品：軟膏。
- 化妝品：面霜、牙膏。

### 特點 +

- **可選配**：附水相、油相加熱攪拌桶，方便原料加熱溶解。
- 可利用如乳化機之真空系統，將油相、水相原料，經過濾器吸至乳化桶內。
- 操作過程中，可設定各箱參數：加熱溫度、乳化速度、刮邊速度...等。
- **自動行程**：加熱／乳化／抽真空／冷卻。
- **油壓升降系統**：可將乳化頭及攪拌葉片隨蓋子升降，方便清洗。
- 可附人機介面，全自動操作。

### 流程圖 | FLOWCHART +



### APPLICATION +

Pharmaceutical: ointment.  
Cosmetic: cream, toothpaste, etc.

### FEATURE +

- Water, oil solution mixing tank with heating system for convenient of raw material heating and dissolving.
- Vacuum system: the oil and water solution can be conveyed to emulsifying tank by vacuum transfer in a closed operation.
- Set variables during operation: heating temperature, homogeneous speed, scraper speed.
- Automatic process: heating / emulsify / vacuum / cooling.
- Oil hydraulic system: lift up the scraper with cover for easy cleaning.
- To use operator interface ( process visualization ) control system for the whole process automation.

### 規格表 | SPECIFICATION

型號 Model	全容積 Full Volume (L)	最大高度 Max. Height (MM)	外型尺寸 Size (MM) (WXLXH)
YS-HM-100	100	3450	750X2000X2450
YS-HM-150	150	3500	800X2100X2500
YS-HM-200	200	3600	870X2350X2600
YS-HM-250	250	3700	900X2400X2650
YS-HM-350	350	3800	930X2440X2700
YS-HM-500	500	4350	1350X2800X3000