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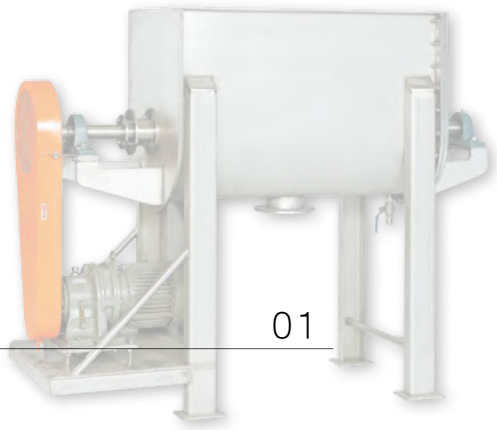
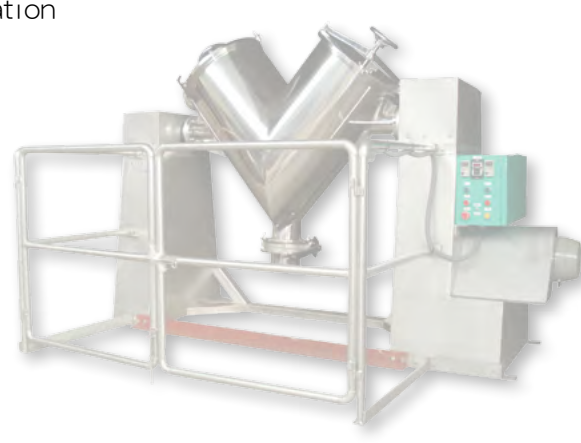




圓錐形混合機
Nauta Mixer

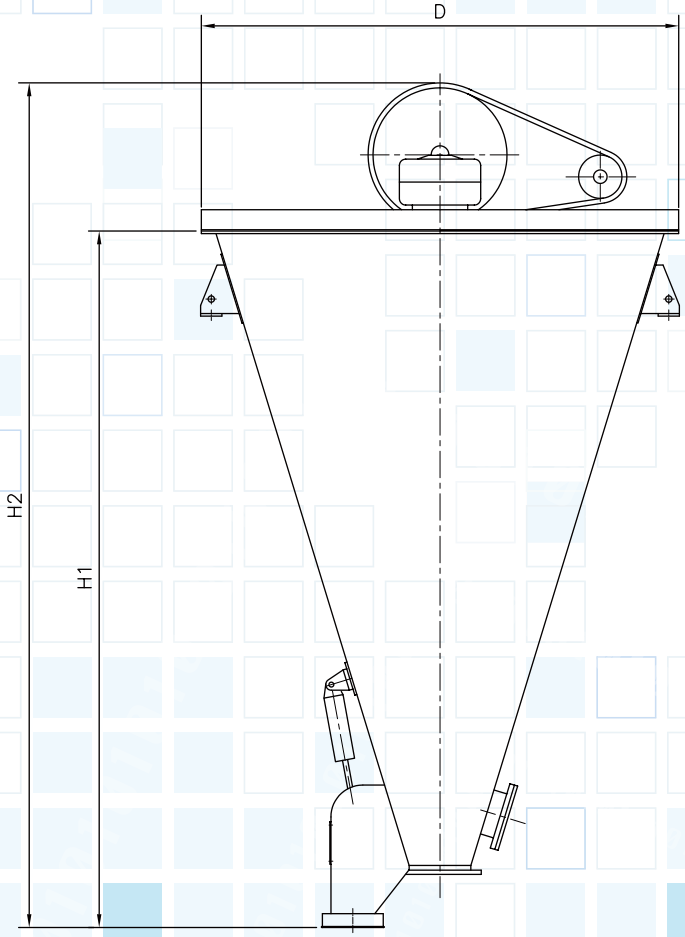
圓錐形混合機為固定圓錐形容器內，以公轉旋臂帶動自轉螺旋葉，使混合物由圓錐底部提升，並沿圓錐壁做行星式運動，達到全面快速、不發熱、不破壞粉粒的混合功能。

比重及混合比懸殊，大批量的物料混合更為適合。亦可做加熱、加濕及冷卻等附加裝置使用，形成一機多功能之混合機。

The nauta mixer is to enable the rotary arm in revolution to drive the helical blades in rotation inside its permanent cone container so that the mixtures can be driven to perform a planetary motion and go up from the bottom of the cone along the wall of the cone; thus a mixing function that is full-scale, quick, less heat generation and free of particulate destruction is achievable.

This mixer is more suitable for mixing materials in a big batch with wide gap in specific weight and mixing ratio. Also, it can be used as an accessorized device for heating, humidifying and cooling applications that serve as a multifunction mixer.

外型圖 Outline diagram



NM型混合機規格 NM Type Nauta Mixer Specification

型式 Model			NM-1	NM-2	NM-3	NM-6	NM-10	M-15	NM-20
投入量 Capacity		Liters	100	200	300	600	1000	1500	2000
主馬達 Main motor		HP	2	3	3	3	3	5	5
副馬達 Sub motor		HP	-	-	-	-	-	-	-
自轉 Self turning		R.P.M	90	60	60	60	60	60	60
公轉 Public turning		R.P.M	3	2	2	2	2	2	2
概略尺寸 Approx dimensions	H1	mm	1130	1380	1560	2210	2250	2860	3110
	H2	mm	2100	2370	2600	2950	3290	3630	3880
	D	mm	1060	1220	1330	1550	1760	1980	2130
概略重量 Approx weight		kg	600	700	800	850	950	1050	1150

型式 Model			NM-30	M-40	NM-50	M-60	NM-70	M-80	NM-100
投入量 Capacity		Liters	3000	4000	5000	6000	7000	8000	10000
主馬達 Main motor		HP	7.5	10	10	15	15	15	15
副馬達 Sub motor		HP	2	2	2	2	2	2	2
自轉 Self turning		R.P.M	60	60	60	60	60	60	60
公轉 Public turning		R.P.M	2	1.5	1.5	1.5	1.5	1.5	1.5
概略尺寸 Approx dimensions	H1	mm	3530	4170	4430	4660	4870	5060	5400
	H2	mm	4300	5210	5465	5700	5190	6100	6430
	D	mm	2410	2820	2980	3120	3250	3370	3570
概略重量 Approx weight		kg	1200	2400	2600	2800	2900	3000	3300

中華民國智慧財產局 專利證明

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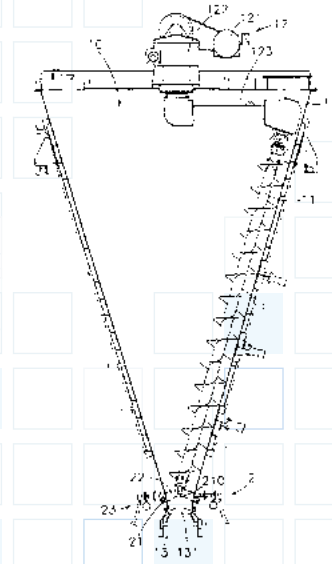
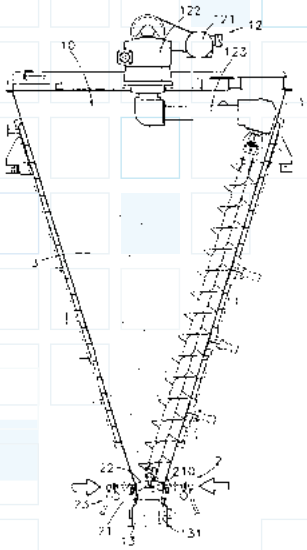
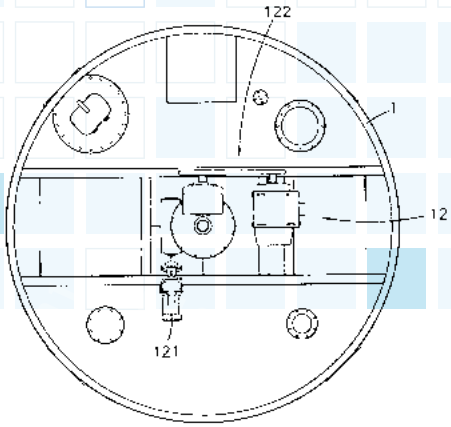
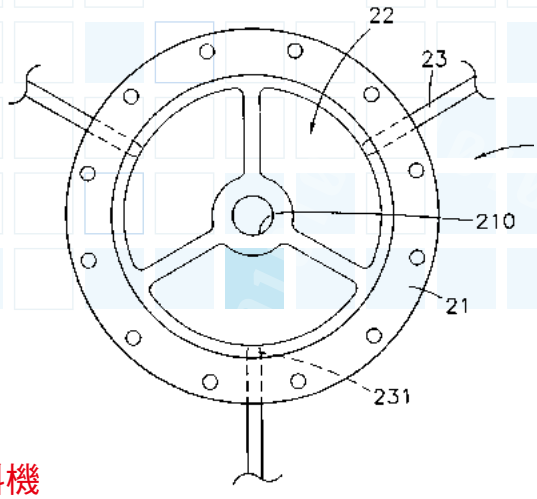


1. 儲料桶 storage hopper
10. 儲料空間 storage space
11. 攪拌螺桿 stirring screw rod
12. 驅動單元 drive unit
121. 馬達 motor
122. 傳動部 drive part
123. 旋臂 spiral arm
13. 出料口 discharge outlet
131. 弧形閘門 radial gate
2. 輔助送料裝置 ancillary feeding device
21. 盤座 disc holder
210. 支撐頭 support head
22. 送料孔 feed inlet
23. 送風器 air blower







本機為新型專利研發機種 --- 粉末原料之混合送料機

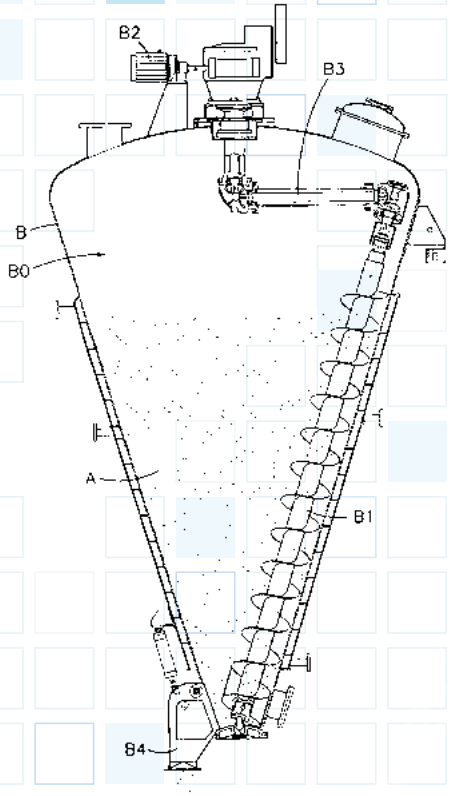
本機為新型專利研發機種粉末原料之混合送料機，主要目的乃在於該送料機具有儲料桶，可利用內部呈漏斗狀之儲存空間儲存預設粉末原料，並於儲料空間內設有攪拌螺桿，進行攪拌、翻鬆預設粉末原料，而儲料空間底部設有出料口，可送出預設粉末原料，再於出料口內側的儲料空間底部，係裝設有輔助送料裝置之盤座，則於盤座中央呈拱形狀隆起之支撐頭，供攪拌螺桿底部活動連接，且銜接孔周邊設有複數送料孔、相對各送料孔外側裝設有送風器，以分別對各送料孔送風、保持送料孔暢通，達到供預設粉末原料通過各送料孔，朝出料口順利送出之目的，避免預設粉末原料凝固成糰、不易送料。

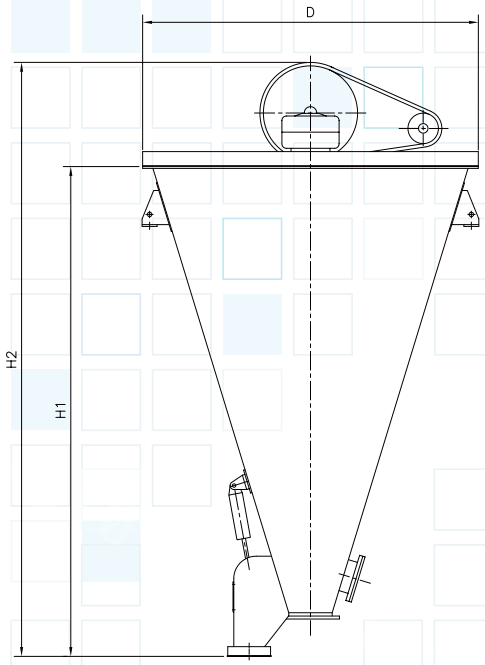
次要目的乃在於該送料機於儲料空間底部，設有出料口，且出料口內側的儲料空間底部，再設有輔助送料裝置，利用盤座外側連設之複數送風器，分別對盤座內部之各送料孔吹風，將集結或堵住的預設粉末原料予以吹散，以確保各送料孔的通暢，不易堆積預設粉末原料，亦可避免預設粉末原料凝結塊體積變大。

This system is a designed system for utility model patent -- raw material power mixer feeder.

This system is a raw material power mixer feeder designed for utility model patent. This invention is mainly to provide a feeder having a storage vat. The inner storage space in the form of funnel may be used to store predetermined raw material powder. An agitating rod is provided inside the material storage space to agitate the predetermined raw material powder and make it loose. The bottom of the material storage space is formed with a discharge port that may discharge the predetermined raw material powder. Further, the bottom of the material storage space inside the discharge port is a tray seat provided with an auxiliary feeder device. The center of tray seat is formed with an arch-shaped supporting joint that connects movably to the bottom of agitating rod. The periphery of the connecting hole is formed with a plurality of feeding holes, and an air blower is provided opposite to each of the feeding holes to blow air to each of the feeding holes for making the feeding hole to be unblocked, thereby the predetermined raw material powder being smoothly discharged toward the discharge port through each of the feeding holes preventing the powder from coagulating and thus not easily discharged.

This invention is further to provide the feeder in which the bottom of the material storage space is formed with a discharge port. An auxiliary feeder device is further provided at the bottom of the material storage space inside the discharge port. The plurality of air blowers connecting to the outside of the tray seat are used to respectively blows air to the discharge ports inside the tray seat for blowing off the coagulating and blocking powder, thereby making each of the discharge ports to be unblocked and not easily accumulating and avoiding the powder from clumping and agglomerating.





一般圓錐形混合機 --- 下料出口機構諸多缺失

粉末原料 A 在儲料桶 B 的儲料空間 B0 內，雖受到攪拌螺旋桿 B1 的攪拌、翻動，但由儲料桶 B 底部側邊的出料槽道 B4 送出時，因為通道的轉彎，容易造成粉末原料 A 的積附、卡滯，造成出料不順暢、堵塞，必須經常清理。

粉末原料 A 若因受潮或接觸空氣中的水分，即容易發生凝結成塊的情況，導致粉末原料 A 無法順利橫向通過出料槽道 B4，形成卡滯現象，無法暢通。

Traditional conical mixer having many defects in its material discharge port

Although the raw material powder A in the material storage space B0 of the storage vat B is agitated by the agitating rod B1, because the passage of the discharge groove B4 at the side of the bottom of storage vat B is crooked, the powder A is subject to accumulation, jam, and poor discharge, thereby frequent clearing being necessary.

If being affected with damp or contacts air moisture, the raw material powder A is subject to clumping, thereby the powder A being easily blocked when transversally passing the discharge passage B4.

專利範圍 What is claimed is:

1. 一種粉末原料之混合送料機，係包括儲料桶、輔助送料裝置，其中：該儲料桶呈漏斗狀、內部設有儲存預設粉末原料之儲存空間，並於儲料空間內設有攪拌預設粉末原料之攪拌螺桿，而儲料空間底部設有送出預設粉末原料之出料口；該輔助送料裝置係裝設於儲料桶的儲料空間底部，設有裝設於出料口內側之盤座，而於盤座中央具有呈拱形狀隆起、並供攪拌螺桿底部活動連接之支撐頭，再於銜接孔周邊設有複數供預設粉末原料通過之送料孔，且相對各送料孔於盤座外側裝設有分別對各送料孔送風、保持暢通之送風器。
2. 如申請專利範圍第 1 項所述粉末原料之混合送料機，其中該儲料桶於儲料空間頂部設有驅動攪拌螺桿旋轉、並於儲料空間內迴轉之驅動單元，而驅動單元係包括馬達、受馬達帶動之傳動部、受傳動部帶動以連動攪拌螺桿旋轉及迴轉之旋臂。
3. 如申請專利範圍第 1 項所述粉末原料之混合送料機，其中該輔助送料裝置為設有呈圓形之盤座，並於圓形盤座內部設有複數等分或非等分間隔設置之送料孔。

1. A raw material power mixer feeder, comprising a storage vat and an auxiliary feeder device, wherein the storage vat is in the form of a funnel, inside which an inner storage space is formed to store predetermined raw material powder, an agitating rod that agitates the powder is provided in the material storage space, and the bottom of the material storage space is formed with a discharge port that discharges the predetermined raw material powder; and the auxiliary feeder device is provided at the bottom of the material storage space of the storage vat and is provided with a tray seat formed at an inner side of the discharge port, the center of tray seat is formed with an arch-shaped supporting joint that connects movably to the bottom of agitating rod, the periphery of the connecting hole is formed with a plurality of feeding holes through which the powder passes, and an air blower is provided opposite to each of the feeding holes to blow air to each of the feeding holes outside the tray seat..
2. The raw material power mixer feeder according to claim 1, wherein a driving unit driving the agitating rod to rotate is provided at the top of the material storage space of the storage vat and comprises a motor, a transmission portion driven by the motor, and a swing arm driven by the transmission portion to make the agitating rod rotate and turn.
3. The raw material power mixer feeder according to claim 1, wherein the auxiliary feeder device is provided with a round tray seat and a plurality of discharge ports that are distributed at an equal or non-equal interval are formed inside the round tray seat.

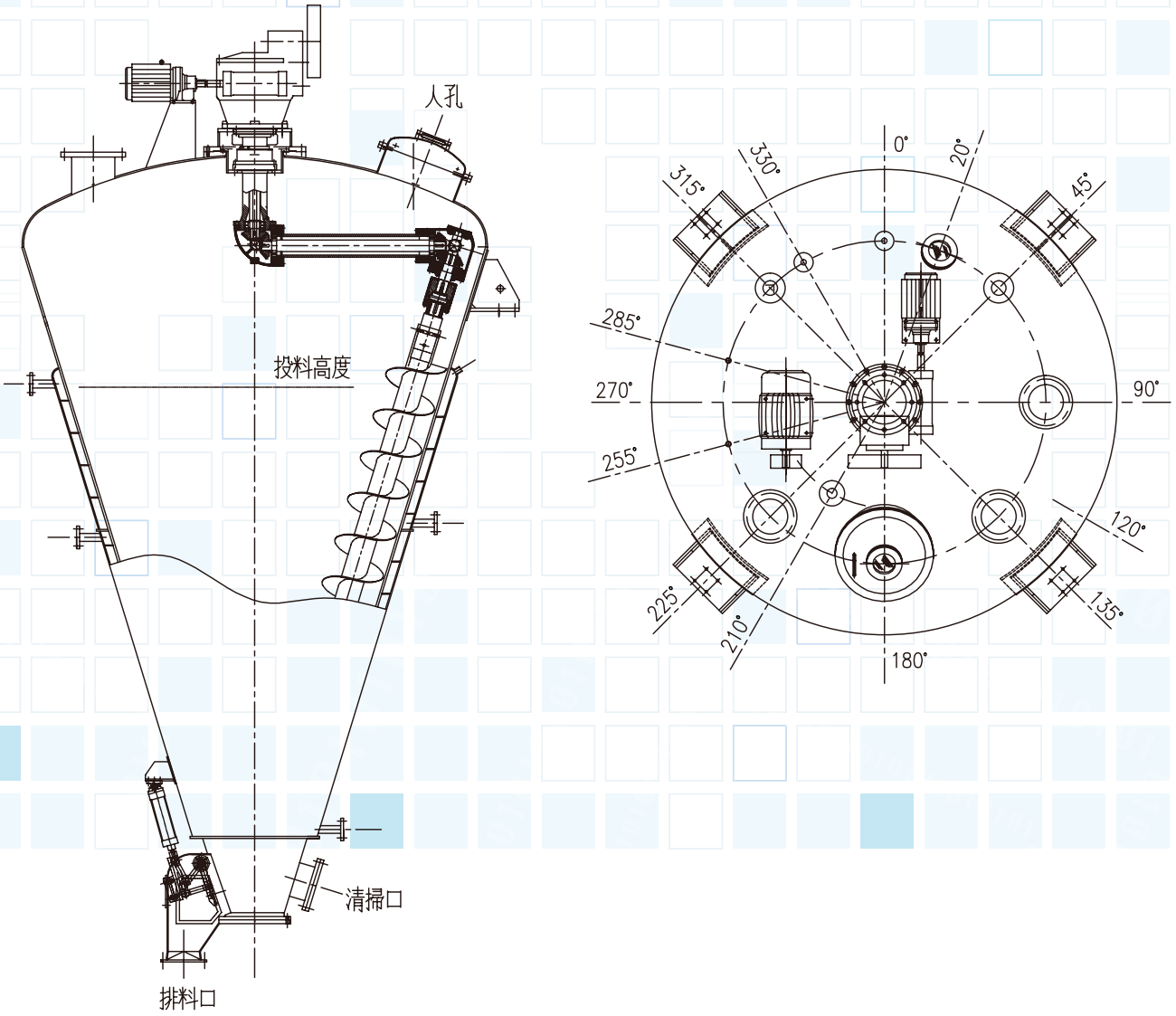
圓錐形真空混合乾燥機

Nauta Mixer Vacuum Dryer

圓錐形真空混合乾燥機為固定圓錐形容器內，以公轉旋臂連結自轉螺旋葉，再搭配外夾套熱源及真空泵浦等設備，使原料能均勻的在圓錐形容器內以行星式運動產生混合、乾燥、冷卻、反應，其動作原理簡單、功能性強、壽命長、用途廣。

Mounted a rotary arm in revolution with helical blades in rotation coupled inside the permanent cone container plus the externally jacketed heat source and vacuum pump, etc. equipments, the nauta mixer vacuum dryer is able to make the raw materials a planetary motion inside the conical container so that they can be blended, dried, cooled and reacted evenly; simple operating principle, powerful performance, long lifetime and wide applications.

外型圖 Outline diagram



NMV 型混合機規格 NMV Type Nauta Mixer Specification

型式 Model		NMV-1	NMV-2	NMV-3	NMV-6	NMV-10	NMV-15	NMV-20
投入量 Capacity	Liters	100	200	300	600	1000	1500	2000
主馬達 Main motor	HP	2	3	3	3	3	5	5
副馬達 Sub motor	HP	-	-	-	-	-	-	-
自轉 Self turning	R.P.M	90	60	60	60	60	60	60
公轉 Public turning	R.P.M	3	2	2	2	2	2	2

型式 Model		NMV-30	NMV-40	NMV-50	NMV-60	NMV-70	NMV-80	NMV-100
投入量 Capacity	Liters	3000	4000	5000	6000	7000	8000	10000
主馬達 Main motor	HP	7.5	10	10	15	15	15	15
副馬達 Sub motor	HP	2	2	2	2	2	2	2
自轉 Self turning	R.P.M	60	60	60	60	60	60	60
公轉 Public turning	R.P.M	2	1.5	1.5	1.5	1.5	1.5	1.5

圓錐形混合實驗機
Nauta mixer

圓錐形混合機為固定圓錐形容器內，以公轉旋臂帶動自轉螺旋葉，使混合物由圓錐底部提升，並沿圓錐壁做行星式運動，達到全面快速、不發熱、不破壞粉粒的混合功能。比重及混合比懸殊，大批量的物料混合更為適合。亦可做加熱、加濕及冷等附加裝置使用，形成一機多功能之混合機。

The conical mixer is to enable the rotary arm in revolution to drive the helical blades in rotation inside its permanent cone container so that the mixtures can be driven to perform a planetary motion and go up from the bottom of the cone along the wall of the cone; thus a mixing function that is full-scale, quick, less heat generation and free of particulate destruction is achievable.
This mixer is more suitable for mixing materials in a big batch with wide gap in specific weight and mixing ratio. Also, it can be used as an accessorized device for heating, humidifying and cooling applications that serve as a multifunction mixer.

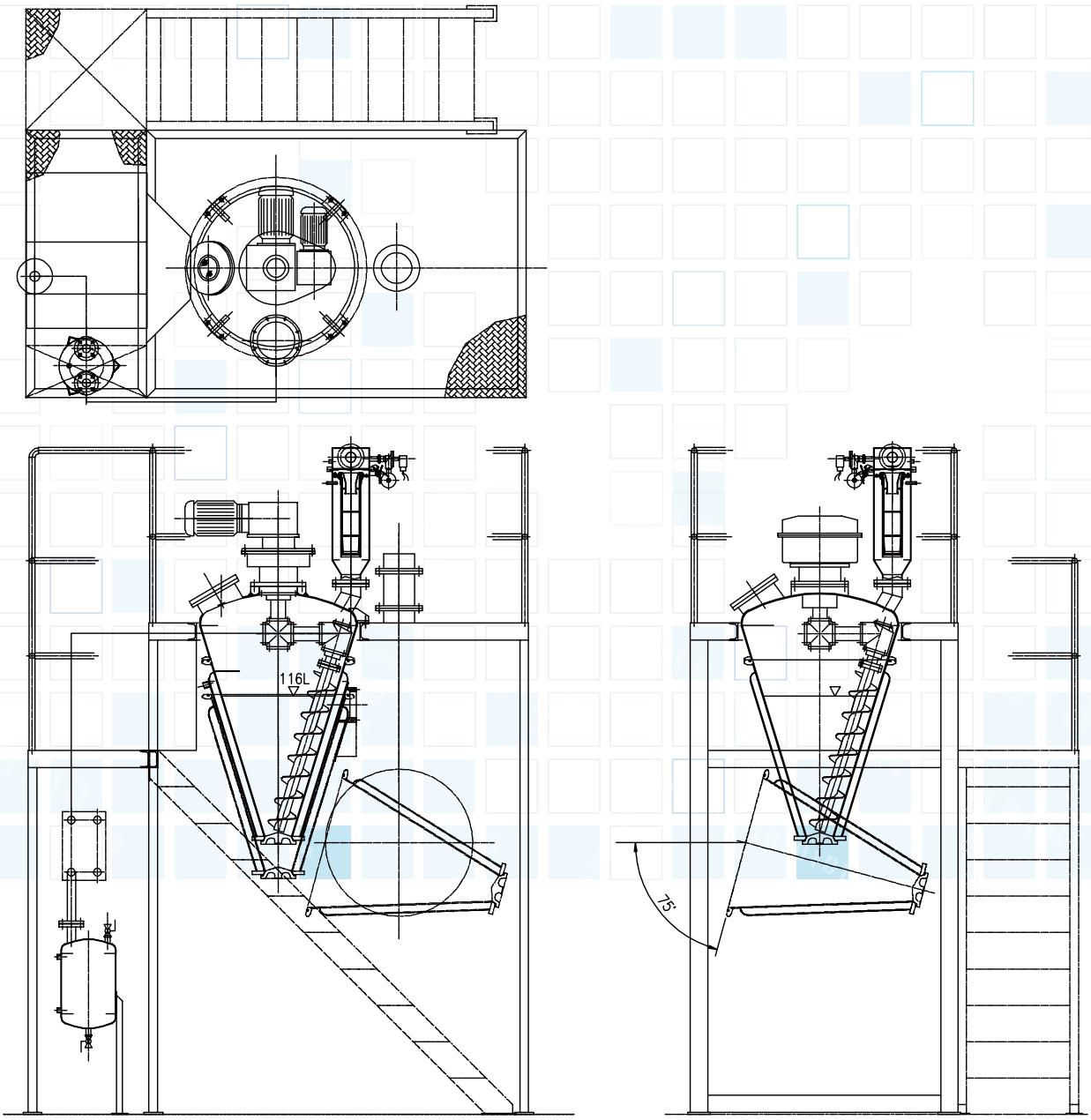

1


2


3


4

外型圖 Outline diagram

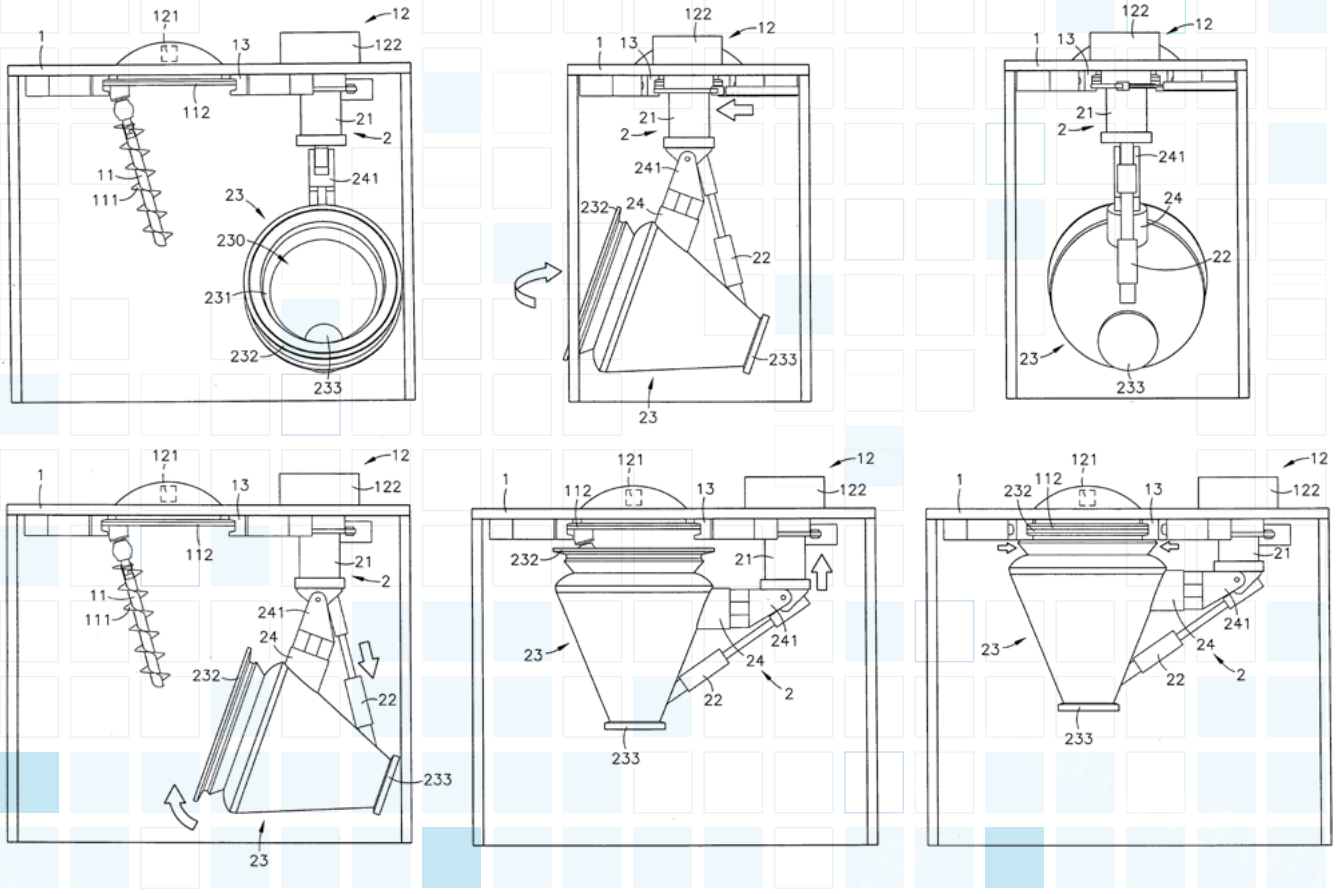


NMT 型混合機規格 NMT Type Nauta Mixer Specification

型式 Model		NMT-1	NMT-2	NMT-3
投入量 Capacity	Liters	100	200	300
主馬達 Main motor	HP	2	3	3
副馬達 Sub motor	HP	-	-	-
自轉 Self turning	R.P.M	90	60	60
公轉 Public turning	R.P.M	3	2	2

中華民國智慧財產局 專利證明

Intelligence property office of the R.O.C. Patent certificate



本機為新型專利研發機種 --- 實驗型混合機

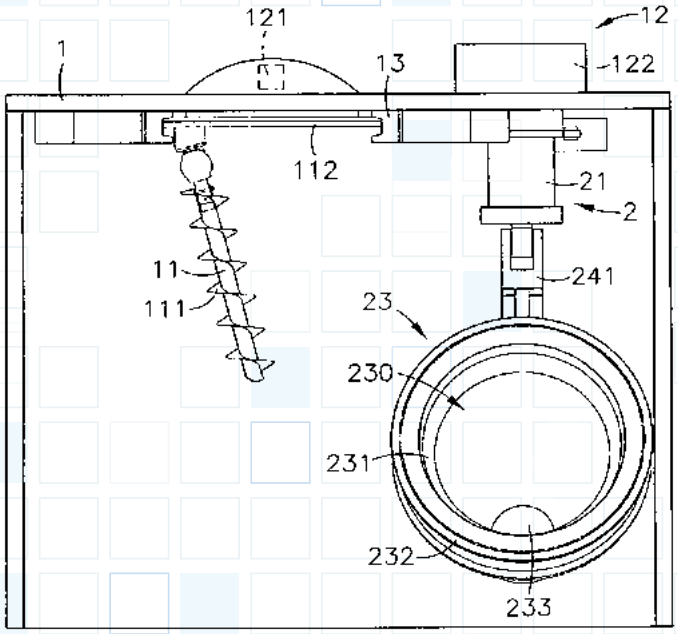
1. 於基座頂部設有控制單元，且透過控制單元供操控攪拌桿呈迴繞式活動旋轉，並於相鄰攪拌桿的側邊設有驅動裝置，驅動裝置設有升降油壓缸座、轉向油壓缸座亦可受控制單元操控，並於升降油壓缸座底部連設儲料桶，以藉升降油壓缸座、轉向油壓缸座驅動儲料桶轉向後罩覆於攪桿外部，而儲料桶內部具有攪拌槽可供承裝預設原料，以供攪拌桿進行攪拌混合後，經攪拌槽底部之出料口送出。

2. 按，許多物料因性質、成分、質量、比例等不同，在儲存或使用的方式上也會有不一樣，則於製作的過程中，就會透過不同的數量、型式予以儲存、分裝或成型，有大部分的原物料在製造後，都會以粉末方式進行混合、儲存，並可方便後續的搬運及使用，常見如工業用之水泥、石灰、化學原料粉劑、塑膠粉劑或塑膠顆粒或農用肥料或動物飼料等，而食用之奶粉、米、鹽、糖或麵粉等，都是製造成粉末狀再予以分裝成小包裝，可供方便應用，但各種原物料在製造後，都是會先儲存在大型儲料桶中，再進行後續的分裝作業。

3. 本機種在進行後續的分裝作業完成後，該攪拌混合機的基座上利用控制單元操控攪拌桿及驅動裝置，且供驅動裝置之升降油壓缸座、轉向油壓缸座帶動儲料桶位移轉向罩覆在攪拌桿外部或離開，達到方便進行儲料桶的清潔處理目的之新型專利攪拌混合機。

This system is a designed system for utility model patent -- experimental mixer.

1. A controller unit is provided on the top of the base. The controller unit is used to control the agitating rod to movably rotate in the form of a planet. A driving device is further provided nearby at the side of the agitating rod. The driving device is provided with a lifting oil-pressure cylinder seat and a steering oil-pressure cylinder seat that can also be controlled by the controller unit. A storage vat is provided at and connected to the bottom of the lifting oil-pressure cylinder seat and is thus driven by the lifting oil-pressure cylinder seat and the steering oil-pressure cylinder seat to steer to the back shield for covering the outside of agitating rod. The storage vat is formed with an agitated tank that can load a predetermined raw material, and after being stirred and mixed by the agitating rod, the raw material is outputted from the discharge port of the bottom of agitated tank.
2. Generally, due to various materials that are different in nature, component, quality, and ratio, the materials are stored and applied in different ways. In the process of production, the materials are stored, packed and formed according to determined quantity and manner. After most of the materials are produced, they are in the form of powder and mixed and stored for subsequent transportation and use. It is common that, for example, industrial cement, lime, chemical raw material powders, plastic powders or particles or agricultural fertilizer or animal feed, and edible milk powder, rice, salt, sugar or flour and the like are produced in the form of powder and handled for small packages for easy use. However, after being produced, each of the raw materials is stored in a large storage vat and then handled for repacking.
3. After the system is operated for subsequent repacking, the controller unit on the base of agitating mixer is used to control the agitating rod and the driving device. Further, the lifting oil-pressure cylinder seat and steering oil-pressure cylinder seat of the driving device drive the storage vat to move and steer to cover the agitating rod or leave for achievement of the agitating mixer according to this utility model that facilitates to clean the storage vat.



1. 基座 foundation support
11. 攪拌桿 stirring rod
111. 螺旋葉片 helical blade
112. 蓋體 cover assembly
12. 控制單元 control unit
121. 馬達 motor
122. 控制系統 control system
13. 夾持器 clamp holder
2. 驅動裝置 driving device
21. 升降油壓缸座 lifting hydraulic cylinder holder
23. 儲料桶 storage hopper
230. 攪拌槽 stirring chest
231. 入料口 feed inlet
232. 環形凸緣 annular flange
233. 出料口 discharge outlet
241. 樞接部 pivot connector

專利範圍 What is claimed is:

1. 一種攪拌混合機，係包括基座及驅動裝置，其中：該基座設有操控攪拌機運作之控制單元，且基座頂部設有供控制單元操控旋轉之攪拌桿；及該驅動裝置係裝設於基座相鄰攪拌桿的側邊，並設有供受控制單元操控之升降油壓缸座、轉向油壓缸座，且設有受升降油壓缸座及轉向油壓缸座驅動而移動至罩覆在攪拌桿外部之儲料桶，而於儲料桶內部設有底部具出料口之攪拌槽。
2. 如申請專利範圍第 1 項所述之攪拌混合機，其中該基座之控制單元係包括操控攪拌桿旋轉之馬達、驅動升降油壓缸座及轉向油壓缸座運作之控制系統。
3. 如申請專利範圍第 1 項所述之攪拌混合機，其中該基座於攪拌桿頂部外圍設有夾持儲料桶頂部所設環形凸緣形成密合之複數夾持器。
4. 如申請專利範圍第 1 項所述之攪拌混合機，其中該驅動裝置之升降油壓缸座一側活動連設有定位於儲料桶外側之連桿。

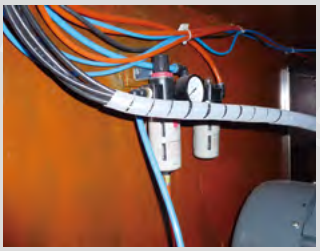
1. An agitating mixer, comprising a base and a driving device, wherein the base is provided with a controller unit that controls the agitating mixer and an agitating rod that is controlled by the controller unit is provided on the top of the base; and the driving device is provided nearby at the side of the agitating rod and is provided with a lifting oil-pressure cylinder seat and a steering oil-pressure cylinder seat that are controlled by the controller unit and with a storage vat that is driven by both the lifting oil-pressure cylinder seat and the steering oil-pressure cylinder seat to move to cover the agitating rod, in which the inside of storage vat is formed with an agitated tank that is formed with a discharge port from which raw materials is outputted.
2. The agitating mixer according to claim 1, wherein the controller unit of the base comprises a motor controlling the agitating rod to rotate, and a control system driving the lifting oil-pressure cylinder seat and the steering oil-pressure cylinder seat.
3. The agitating mixer according to claim 1, wherein a plurality of tightened holders formed with annular flanges that hold the top of the storage vat are provided at the periphery of the top of the agitating rod.
4. The agitating mixer according to claim 1, wherein a connecting rod outside the storage vat is provided movably linking to one side of the lifting oil-pressure cylinder seat of the driving device.

高速混合機 氣缸垂直掀蓋式 HSM-300

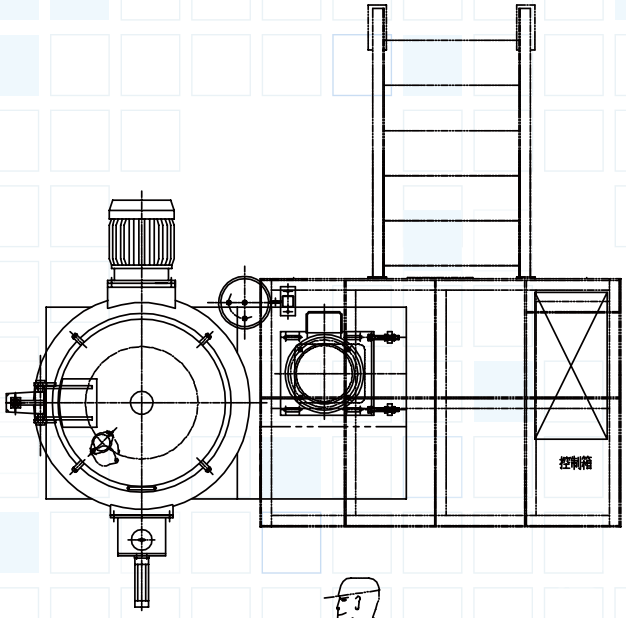
High Speed mixer

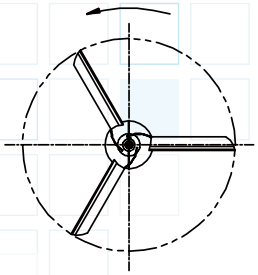
高速混合機是利用攪拌葉片，以高速旋轉造成粉體懸浮流動，配以弧形桶槽設計使粉體或粉液體快速完成混合、分散及披覆的功能。再配合解碎刀具可同時具有造粒及破碎效果。本設備亦可搭配加熱、冷卻及抽真空等相關裝置使用，形成一機多功能之混合機。

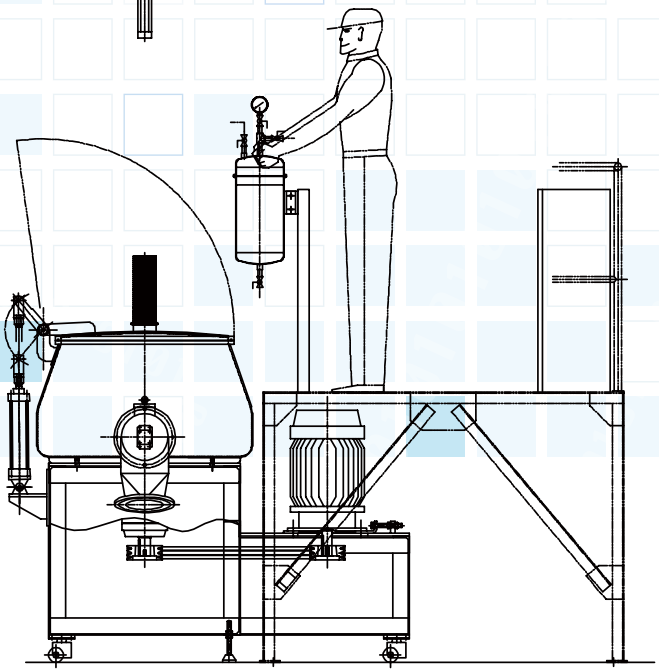
In the high speed mixer, mixing blades spin at high speed to create stirring and flowing of powdery material, facilitating quick and effective mixing of powders or powder and liquid with the curved drum design. The features of dispersion and coating are combined with crushing cutters to give a grain-forming and crushing effect. The unit is provided with optional heating, cooling and vacuuming systems for a single mixer with multiple functions.

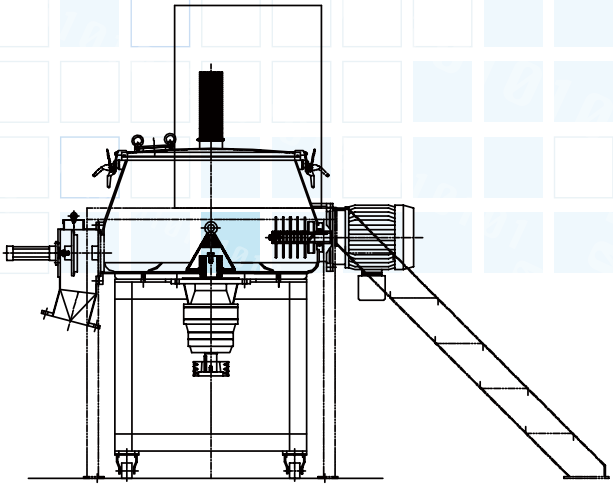


外型圖 Outline diagram









高速混合機規格表 Specifications for High Speed Mixer

型式 Model / 規格 Specifications		HSM-10	HSM-25	HSM-50	HSM-100	HSM-200	HSM-600	HSM-1000	HSM-1500	HSM-2000	HSM-3000
操作容量 Operation Volume	Liter	6	15	30	60	120	240	600	900	1200	1800
混合 Mixer	HP	3	5	$7\frac{1}{2}$	15	20	40	50	75	100	120
混合 Mixer	RPM	900	600	500	210	170	120	100	85	80	70
造粒 Granulated	HP	1(2P)	2(2P)	3(2P)	5(2P)	$7\frac{1}{2}$(2P)	15(4P)	20(4P)	25(4P)	30(4P)	40(4P)
造粒 Granulated	RPM	3600	3600	3600	3600	3600	1800	1800	1800	1800	1800
混合桶 Shell	mm	280	400	500	640	800	1150	1370	1560	1720	2000
概略尺寸 Rougning-in dimension (mm)	L	1200	1450	1600	1530	1800	2400	2750	4450	4600	5100
	W	650	900	750	1520	1720	2250	2560	2660	2840	3180
	H	1100	1200	1250	1330	1500	2620	3040	3170	3530	3500
概略重量 Approximate weight	KGS	280	500	450	1500	1900	3000	4100	5800	6300	7500

高速混合機 水平旋轉掀蓋式 HSM-300

High Speed mixer

中華民國智慧財產局 專利證明

Intelligence property office of the R.O.C. Patent certificate

本機為新型專利研發機種 --- 旋轉升降機構

該旋轉升降機構係透過驅動裝置搭配機具，使得驅動裝置之固定部及固定軸套分別組裝於機具之作動本體及上蓋，並透過轉動手把帶動連接桿旋轉，使得螺桿外部之螺帽帶動軸柱外部之限位軸套做上升或下降之縱向位移；及透過軸柱活動穿設於固定軸套，使上蓋能做橫向之旋動，藉此使上蓋能於作動本體之開口做開合之動作，以供複數預設料件透過開口置於作動本體內以進行加工作業，並以此減少加工過程中之人力及動力能源損耗，進而降低產品之製造成本。

按，隨著科技時代來臨，對於日常生活及工作所需之物品、用具…等需求越來越多；品質要求也愈來愈高。許多製造、生產廠商便透過高精密度的加工器具、進行各式物品用具的製造、生產，其中又有部份加工器具係以作業容器搭配蓋體所組成，如粉末攪拌器或粉粒篩料器等。

以作業容器粉末攪拌器為例，當欲生產各式粉末狀之產品時，如工業用之水泥、石灰，或食用之奶粉、米、鹽、糖或麵粉等，因於製造過程中需將多種不同特性、成份、質量之物料進行混合，此時即可將各式物料傾到於粉末攪拌器之置料孔，並將蓋體罩覆於粉末攪拌器之置料孔，以供各式物料於粉末攪拌器內進行混合、攪拌、震動時，可透過置料孔上之蓋體而不致散出。

This system is a designed system for utility model patent -- rotary lift mechanism.

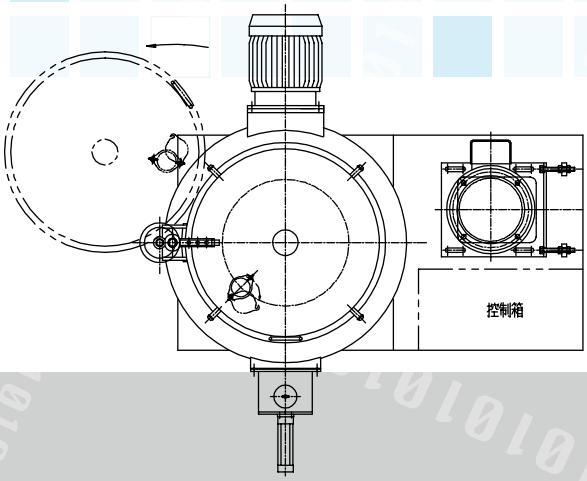
The rotary lifting mechanism works with machines and tools through a driving device so that the fixed portion and the fixed hub of the driving device are respectively assembled to the actuator body and top cover of the machines and tools, and a rotating handgrip is used to drive the connecting rod to rotate so that the screw nut outside the screw rod drives the shift-limit bush outside the shaft column to move up or down; and through the shaft colume that movably passes through the fixed hub, the top cover may be made transversally rotate so that the top cover may be made to open or close on the mouth of the actuator body, thereby a plurality of predetermined parts being placed in the actuator body through the mouth for machining and the cost of manufacturing of the products being lowered with the lowered consumption of human power and power source in the machining process.

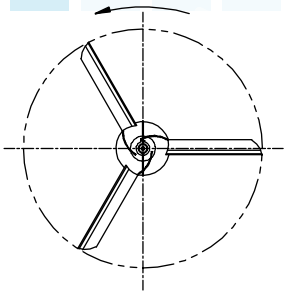
Along with the advance of science and technology, more and more articles, appliance and the like are demanded in daily life and the higher and higher quality is required. Many manufacturers use high-precision machining tools to manufacture various articles, in which each of some of the machining tools is assembled with a container provided with a cover, such as powder agitator or particle sieve device. For example of the container provided with the powder agitator, when various types of powder is produced, such as industrial cement and lime or edible milk powder, rice, salt, sugar or flour and the like, because various materials of different properties, components, and levels of quality are mixed with each other, the materials may be poured to the charge hole of the powder agitator and the cover is made to shield the charge hole of powder agitator, thereby not making the materials easily get out of the powder agitator when being mixed, agitated, and shaked in the powder agitator.

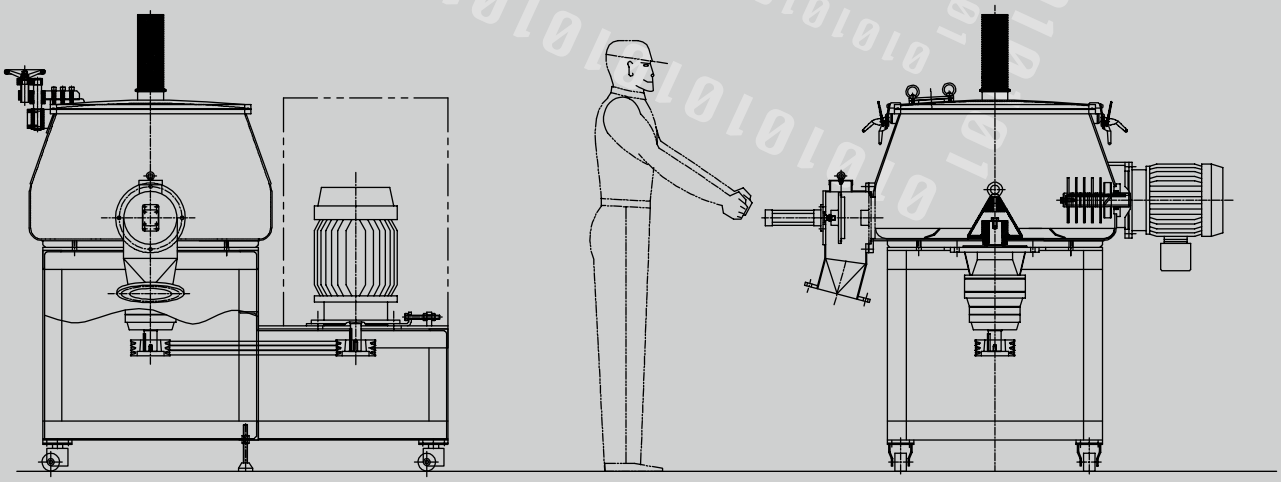
本機構主要目的乃在於透過驅動裝置之固定部及固定軸套分別組裝於機具之作動本體及上蓋，以供上蓋做縱向位移及橫向之旋動，藉此達到上蓋於作動本體之開口做開啟或閉合之動作，並以此減少加工過程中之人力及動力能源損耗，進而降低產品之製造成本。次要目的乃在於透過驅動裝置對機具之上蓋做縱向及橫向之位移，且因上蓋不易受外力影響而產生大幅度之移動，故可防止使用者受到移動中之上蓋碰撞傷害，以提高操作安全。

This invention is mainly to provide this mechanism in which the fixed portion and the fixed hub of the driving device are respectively assembled to the actuator body and top cover of the machines and tools for making the top cover vertically move and transversally rotate so that the top cover may be made to open or close on the mouth of the actuator body for decreasing the human power and the consumption of power source in the machining process and further lowering the cost of manufacturing of the product. This invention is further to the driving device is used to make the top cover of the machine and tool vertically and transversally move, and because the top cover is not easily affected with external force to drastically move, the users may be protected from injury caused from their impact with the moving top cover, thereby increasing the security of operation.

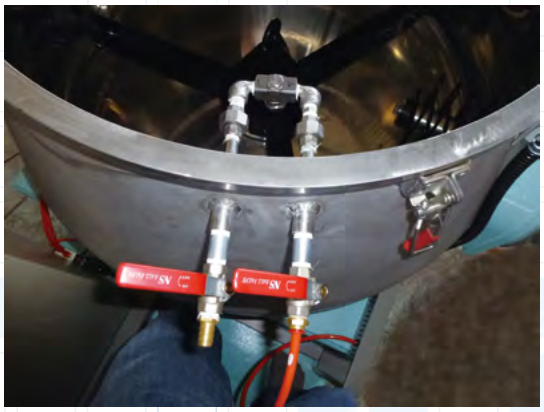
外型圖 Outline diagram









一般型攪拌混合機 --- 蓋體機構諸多缺失

透過自動裝置（如氣動構造、彈力構造等）將蓋體組裝於作業容器近置料孔一側，並透過自動裝置對蓋體做彈出、升降以完成開啟或閉合之動作，但因自動裝置需外接動力源且需考慮多項因素（如蓋之重量、所處空間或位置等）而進行調整，故此種方式將增加作業過程中之人力及動力能源損耗，並提高產品之製造成本。

以掀蓋裝置將蓋體組裝於作業容器近置料孔一側，並透過對蓋體之掀合，以供各式物料傾到於作業容器之置料孔以進行加工作業，但此種方式於蓋體開啟時常因外力之推擠或碰撞，而使蓋體朝置料孔倒下，且蓋體於倒下之過程中亦受到地心引力之影響並產生重力加速度，此時對作業容器旁之使用者造成傷害，並大大提高操作之危險性。

Conventional agitating mixer having many defects in its cover

It is found that a manufacture uses an automatic device, such as pneumatic mechanism, elasticity mechanism and the like, to set the cover in the container near one side of the charge hole and eject and raise or lower the cover for the open or close operation. Because the automatic device is adjusted depending upon an external power source and many factors put into consideration, such as weight, occupied space or location; such a way will make the human power and the consumption of power source increase in the machining process and make the cost of manufacturing of the product increase.

Besides, it is also found that a manufacturer set the cover in the container near one side of the charge hole according to the principle of cover opening device to for making the cover open, thereby allowing various materials to be poured into the charge hole of the container for machining. However, in such a way, when being opened, the cover generally falls toward the charge hole if being pushed or collided with an external force. When falling, the cover is also impacted with gravity and gravity acceleration, which might cause damage to the users near the container and greatly increases the risk of the operation.

專利範圍 What is claimed is:

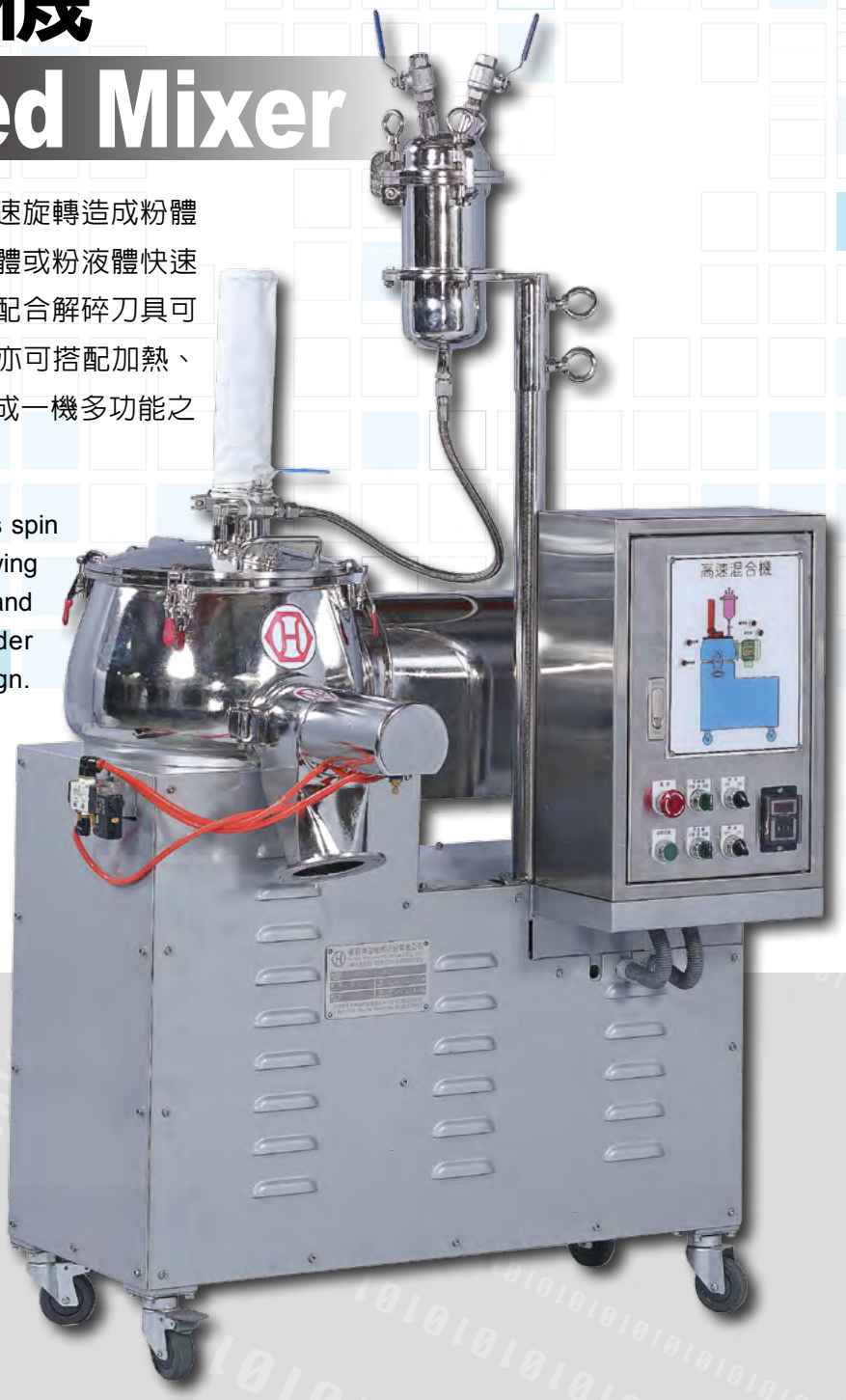
1. 一種旋轉升降機構，係包括有驅動裝置及機具，其中：該驅動裝置設有內部活動穿設連接桿之基部，並於穿出基部外側之連接桿周緣固定設有轉動手把，再於連接桿朝遠離轉動手把一側延設有穿出基部外側之螺桿，而螺桿外部旋設有螺帽，又基部相鄰連接桿處設有平行於螺桿之軸柱，且軸柱活動套設有限位軸套，限位軸套係固定於螺帽，又限位軸套再朝相對螺帽之另側連接有固定部，且軸柱於遠離基部一側活動穿設有固定軸套；該機具設有具開口之作動本體，並將驅動裝置之固定軸套固定於作動本體之開口外側，且配合開口罩覆設有供驅動裝置之固定部連接的上蓋。
2. 如申請專利範圍第 1 項所述之旋轉升降機構，其中該驅動裝置之固定部與機具之上蓋連接係以焊接方式連接；或於固定部朝上蓋旋入、固定有複數螺柱。
3. 如申請專利範圍第 1 項所述之旋轉升降機構，其中該驅動裝置係於基部內之連接桿周緣環套有第一軸承，且第一軸承為滾珠軸承或滾針軸承。
4. 如申請專利範圍第 1 項所述之旋轉升降機構，其中該驅動裝置係於限位軸套內之軸柱周緣環套有一個或一個以上之自潤軸承。
5. 如申請專利範圍第 1 項所述之旋轉升降機構，其中該驅動裝置係於固定軸套內之軸柱周緣環套有第二軸承，且第二軸承為滾珠軸承或滾針軸承。
6. 如申請專利範圍第 1 項所述之旋轉升降機構，其中該機具之上蓋一外側邊設有握把。

1. A rotary lifting mechanism, comprising a driving device and a machine and tool, wherein the driving device is provided with an inner base that movably passes through a connecting rod, a rotary hand grip is constantly provided at the periphery of connecting rod passing through the outside of the base, a connecting rod passing through the outside of base is provided extending from one side of the rotary hand grip, a spiral screw nut is formed outside the screw rod, a shaft column horizontal to the screw rod is provided at a portion where the base is adjacent to the connecting rod, a shift limit bush is set movably around the shaft column, fixed to the screw nut, and connected with a fixed portion to another side of the bush opposite to the screw nut, and a fixed bush is set movably around the shaft column away from one side of the base; and the machine and tool is provide with an actuator body provided with a mouth, the fixed bush of the driving device is fixed to the outside of the mouth of actuator body, and a top cover connecting to the fixed portion of the driving device is provided to cover the mouth.
2. The rotary lifting mechanism according to claim 1, wherein the fixed portion of the driving device is connected to the top cover of the machine and tool by means of soldering or the fixed portion is screwed in toward the top cover with a plurality of fixed screws.
3. The rotary lifting mechanism according to claim 1, wherein a first bearing is set around the periphery of the connecting rod in the base of the driving device and the first bearing is a ball bearing or a needle bearing.
4. The rotary lifting mechanism according to claim 1, wherein one or more self-lubricating bearings are set around the periphery of shaft column in the shift-limit bush of the driving device.
5. The rotary lifting mechanism according to claim 1, wherein a second bearing is set around the periphery of shaft column in the fixed bush of the driving device and the second bearing is a ball bearing or a needle bearing.
6. The rotary lifting mechanism according to claim 1, wherein a hand grip is provided at the outside of the top cover of the machine and tool.

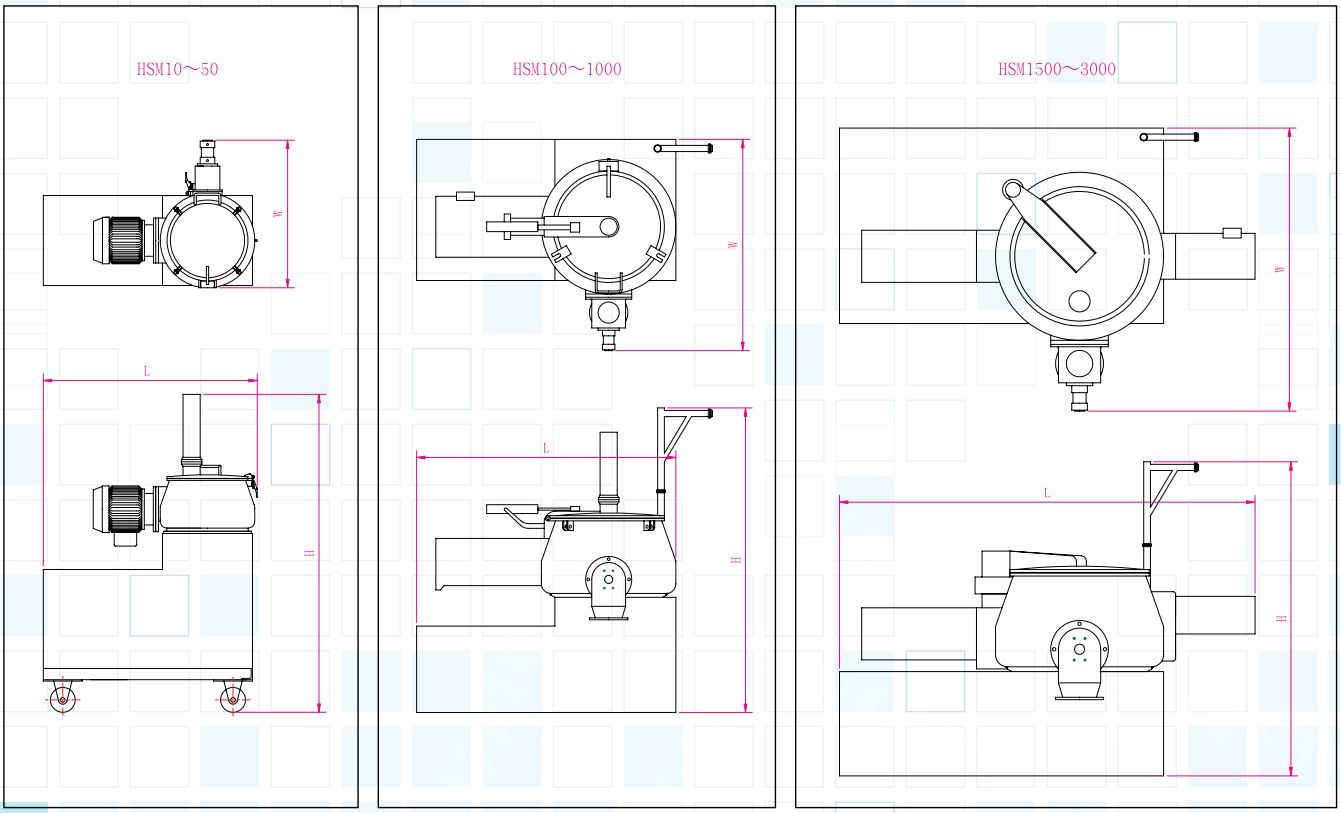
高速混合機
High Speed Mixer

高速混合機是利用攪拌葉片，以高速旋轉造成粉體懸浮流動，配以弧形桶槽設計使粉體或粉液體快速完成混合、分散及披覆的功能。再配合解碎刀具可同時具有造粒及破碎效果。本設備亦可搭配加熱、冷卻及抽真空等相關裝置使用，形成一機多功能之混合機。

In the high speed mixer, mixing blades spin at high speed to create stirring and flowing of powdery material, facilitating quick and effective mixing of powders or powder and liquid with the curved drum design. The features of dispersion and coating are combined with crushing cutters to give a grain-forming and crushing effect. The unit is provided with optional heating, cooling and vacuuming systems for a single mixer with multiple functions.



外型圖 Outline diagram



高速混合機規格表 Specifications for High Speed Mixer

規格 Specifications / 型式 Model		HSM-10	HSM-25	HSM-50	HSM-100	HSM-200	HSM-600	HSM-1000	HSM-1500	HSM-2000	HSM-3000
操作容量 Operation Volume	Liter	6	15	30	60	120	240	600	900	1200	1800
混合 Mixer	HP	3	5	$7\frac{1}{2}$	15	20	40	50	75	100	120
混合 Mixer	RPM	900	600	500	210	170	120	100	85	80	70
造粒 Granulated	HP	1(2P)	2(2P)	3(2P)	5(2P)	$7\frac{1}{2}$(2P)	15(4P)	20(4P)	25(4P)	30(4P)	40(4P)
造粒 Granulated	RPM	3600	3600	3600	3600	3600	1800	1800	1800	1800	1800
混合桶 Shell	mm	280	400	500	640	800	1150	1370	1560	1720	2000
概略尺寸 Rougning-in dimension (mm)	L	1200	1450	1600	1530	1800	2400	2750	4450	4600	5100
	W	650	900	750	1520	1720	2250	2560	2660	2840	3180
	H	1100	1200	1250	1330	1500	2620	3040	3170	3530	3500
概略重量 Approximate weight	KGS	280	500	450	1500	1900	3000	4100	5800	6300	7500

V 型混合機
V-Type Blender

特徵：

原料經 V 型槽本體之迴轉而作交叉結合與分離等運動，達到理想之混合效果。

用途：

適用於顏料、染料、藥品等比重較小之粉體混合。

操作量：全容量之 30 ～ 40%。

材　質：軟鋼或不鏽鋼等。

特殊型：內部加裝攪拌器及內部磨光等。

CHARACTERISTICS:

Best blending results can be achieved continuously blends and separates accomplished.

APPLICATIONS:

V-Type Blender is most suitable for paints, dye-stuffs and pharmaceutical.

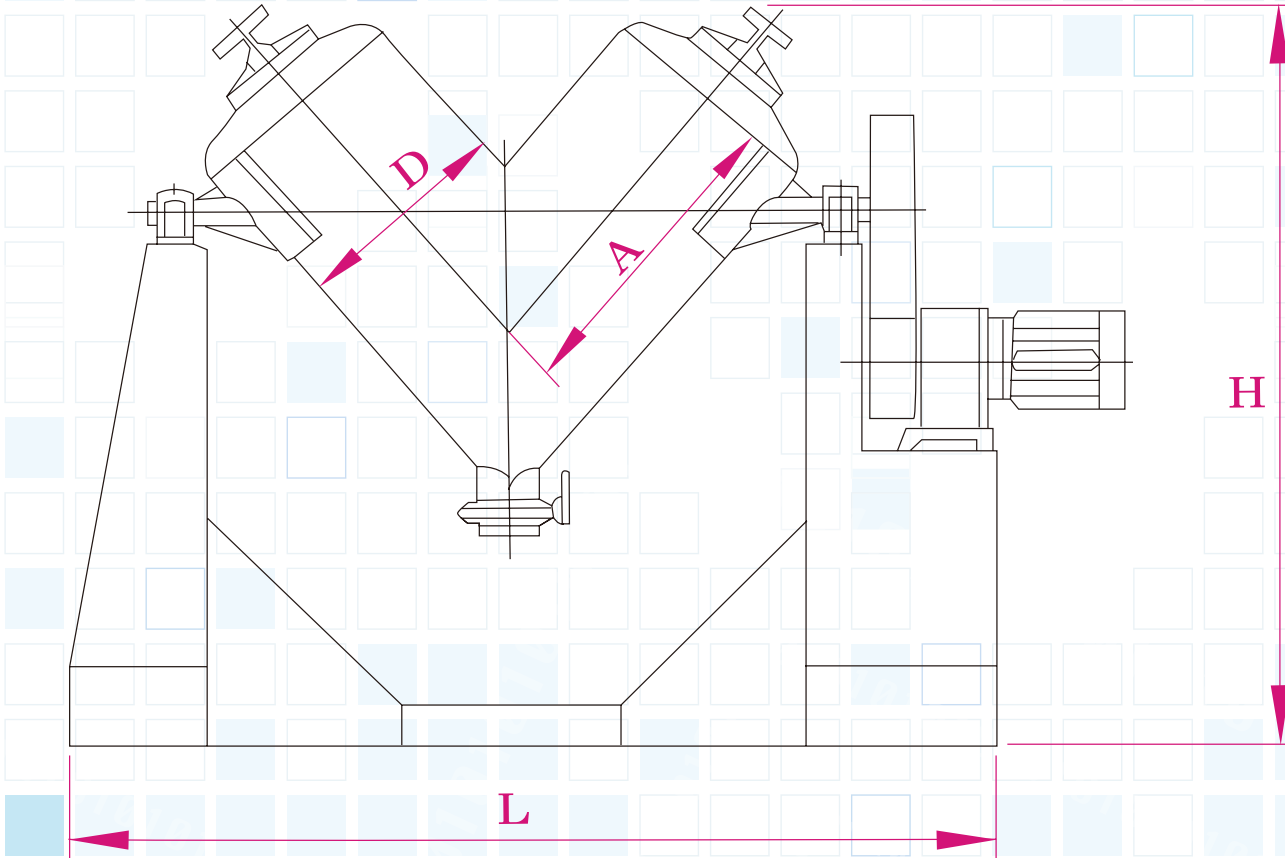
CAPACITY: 30%~40% of the full volume.

MATERIALS: Mild steel or stainless steel.

SPECIAL MODELS:

The V-Type is installed additional Blender or inner surface polished etc.

外型圖 Outline diagram



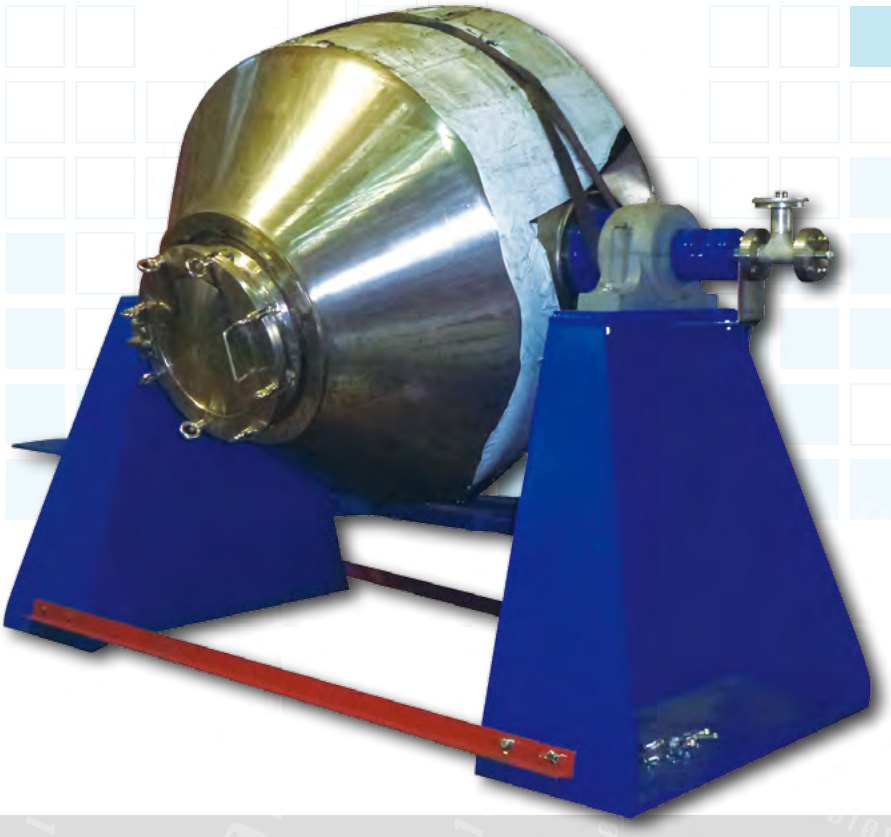
V 型規格表 (V-Type Specification)

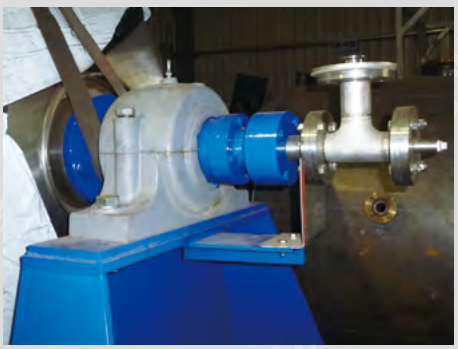
型式 Model	全容量(L) Full volume(L)	A m/m	D m/m	H m/m	L m/m	馬力 HP	轉速 Rpm
VB-30	30	340	240	1000	1100	$\frac{1}{2}$	60
VB-60	60	450	295	1050	1200	$\frac{1}{2}$	55
VB-100	100	530	350	1500	1400	$\frac{1}{2}$-1	42
VB-150	150	560	420	1550	1500	1-2	40
VB-200	200	600	470	1550	1650	1-3	35
VB-300	300	740	510	1850	1870	2-3	28
VB-500	500	865	610	2200	2600	2-5	22
VB-1000	1000	1100	780	2400	3200	5-7$\frac{1}{2}$	19
VB-1500	1500	1250	880	2650	3200	5-7$\frac{1}{2}$	13
VB-2000	2000	1370	965	3000	3800	7$\frac{1}{2}$-10	11
VB-3000	3000	1600	1100	3800	4000	10-20	10

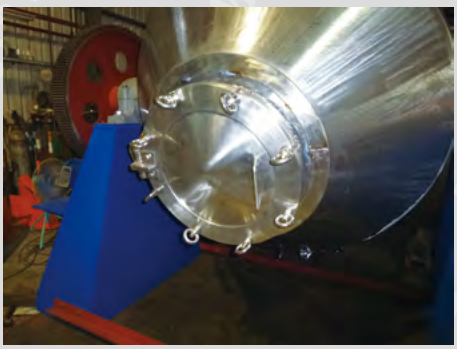
W 型混合機
W-Type Blender

此機是利用雙錐筒體，繞軸旋轉，使物料受重力作用，產生相互翻攪與分離等運動，而達到混合功能。對流動性較好、物理性質差異不大之物料混合最適用。筒內可加裝破碎棒及擋板等輔助裝置，亦可作加熱、冷卻、抽真空等多功能使用。

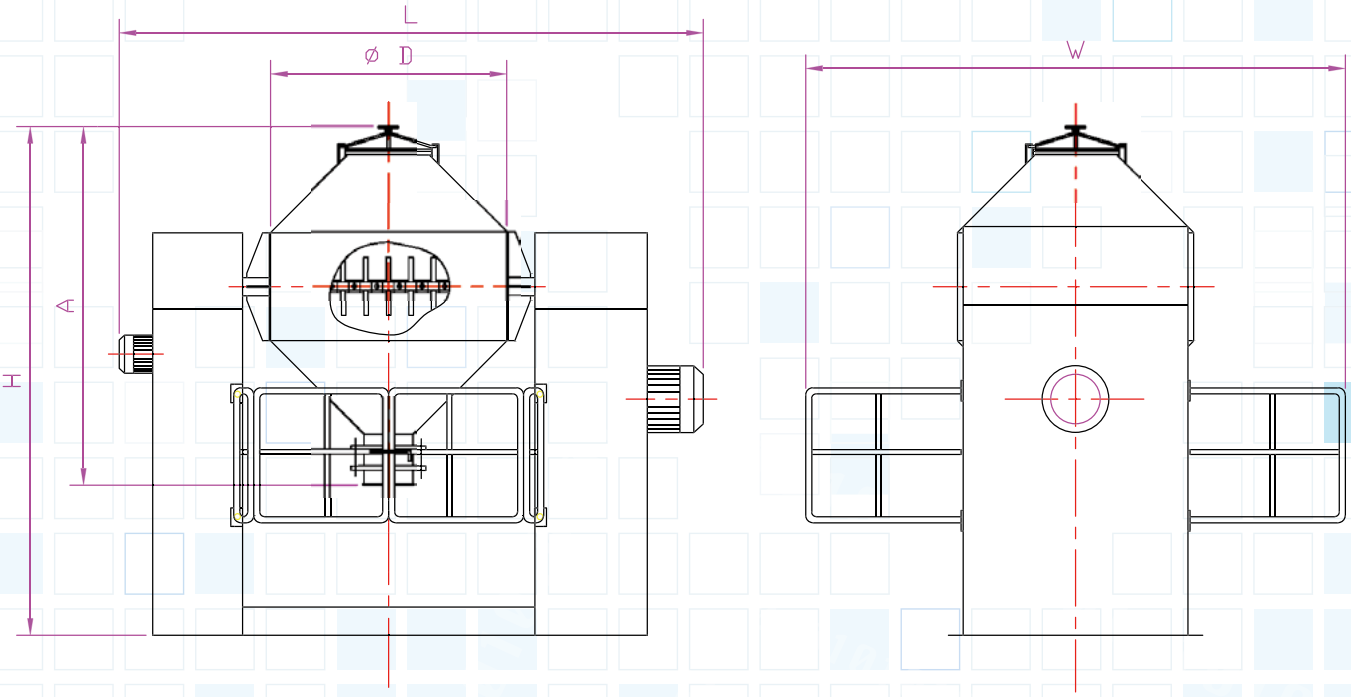
This machine is using double cone cylinder to rotate around an axis, so that material resulting mutual agitation and separation movement by gravity, and to achieve the mixing function. It is most suitable for the mixing of those materials with good flow, and with only slight physical properties deviation. It may install broken rods and baffle plate and other auxiliary devices and also devices for heating, cooling, vacuum and other multipurpose inside the blender.







外型圖 Outline diagram

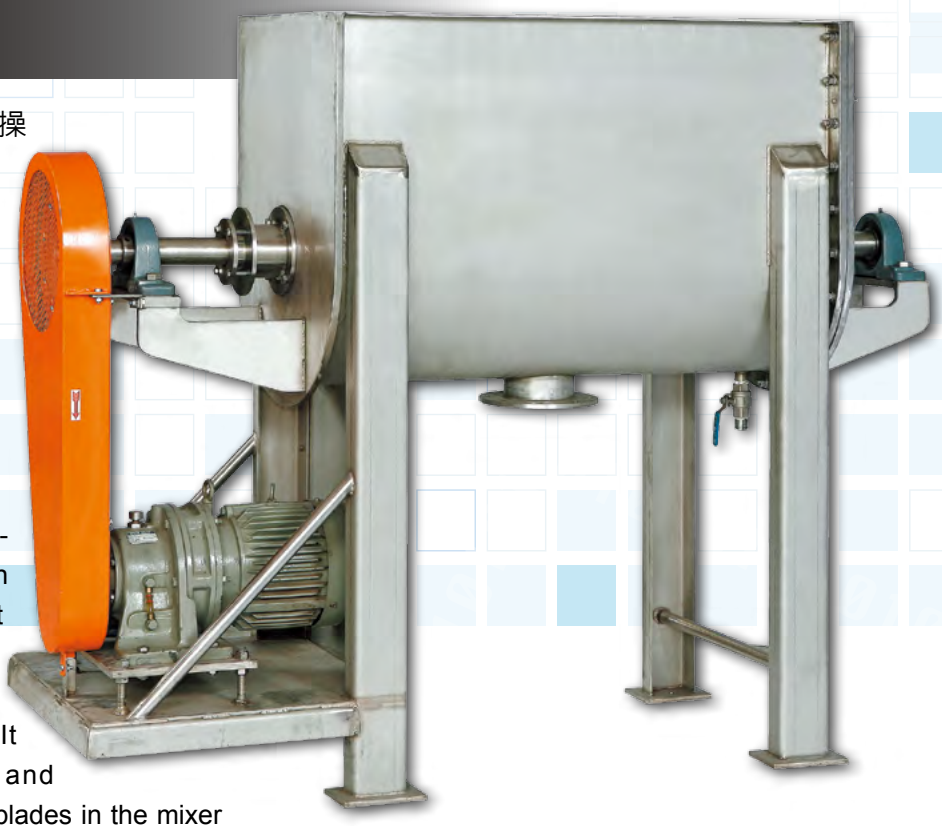


規格表 Specification table

型式 Model	全容量(L) Full volume(L)	概略尺寸 Approximate dimension					馬力 HP	轉速 Rpm
		L	W	H	A	D		
WB-50	50	1200	1000	1100	750	450	$\frac{1}{2}$	55
WB-100	100	1400	1300	1200	950	550	1	45
WB-200	200	1600	1600	1400	1200	700	2	35
WB-300	300	1800	2000	1600	1400	800	3	28
WB-500	500	2100	2200	2000	1600	950	5	22
WB-700	700	2200	2400	2100	1800	1100	$7\frac{1}{2}$	18
WB-1000	1000	2500	2800	2400	2000	1200	$7\frac{1}{2}$	15
WB-2000	2000	3000	3500	2800	2500	1500	10	11
WB-3000	3000	3300	4200	3200	3000	1700	15	10
WB-5000	5000	4100	7000	4000	5000	2000	20	9

操作量 Operating volume：30%~40%

RB 雙螺旋混合機
RB Mixer



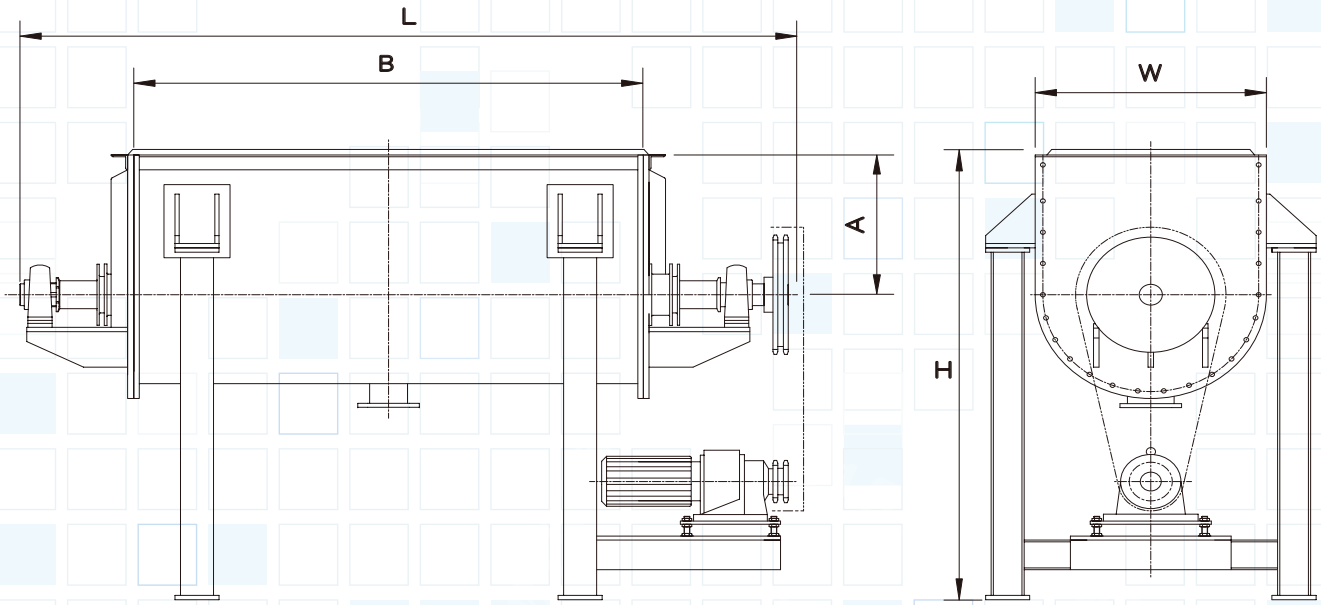
臥式混合機是一種結構簡單、操作方便、效率高的混合機，適用乾粉體或粉液體的混合，亦可作加熱、冷　及抽真空等功能，內部的攪拌葉片，可針對混合材料物性設計為單、雙螺旋帶、T狀、棒狀、刮刀式等形式，作多功能運用。

The horizontal mixer is high-performance mixer designed with a simple but reliable structure that is easy to operate. It is suitable for mixing of dry powder or the mixture of powder and liquid. It also serves as heater, cooler and vacuuming machine. The mixing blades in the mixer can be single or double spiral belts, T-bars, round bars or scrapers to match your needs.

特徵：
螺旋帶型攪拌器能完全而徹底地混合原料，因為它能製造兩層並計算運動流量。
用途：
螺旋帶型混合機最適合於不同狀態原料的混合。對粉體和液體添加物的混合，它也是一種理想的混合機。
操作量：全容量之 40-60%。
材　質：軟鋼或不鏽鋼等。

CHARACTERISTICS:
Complete and thorough blending of raw materials by Ribbon agitator which create two layers and counter movement of flows.
APPLICATIONS:
Ribbon Blender is most suitable for the blending of raw materials in their varieties of forms: pellets, powder and liquid. It is also an ideal blender for the blending of additive in their powder and liquid forms.
CAPACITY: 40%~60% of the full volume.
MATERIALS: Mild steel or stainless steel.

外型圖 Outline diagram



規格表 (Specification & Dimensions)

型式 Model	全容量(L) Full volume(L)	A m/m	B m/m	W m/m	H m/m	L m/m	馬力 Motor HP	轉速 Rpm
RB-50	50	200	720	260	1000	1300	1-2	80
RB-100	100	240	900	330	1050	1500	1-3	70
RB-200	200	300	1000	430	1200	1600	2-3	55
RB-300	300	350	1220	500	1500	1820	3-5	50
RB-500	500	390	1520	570	1600	2100	5-7 1/2	42
RB-800	800	500	1520	700	1800	2100	5-10	38
RB-1000	1000	550	1800	700	1850	2400	7 1/2-10	33
RB-1500	1500	570	1820	900	2200	2450	7 1/2-15	28
RB-2000	2000	570	2440	900	2200	3150	10-20	24
RB-3000	3000	700	2440	1100	2500	3150	15-25	21
RB-5000	5000	850	3000	1300	2600	3800	20-25	15
RB-6000	6000	900	3000	1570	2900	3800	25-30	15
RB-8000	8000	1100	3000	1750	3200	4100	30-40	13
RB-10000	10000	1200	3000	1950	3400	4300	40-50	10
RB-12000	12000	1400	3000	2050	3650	4500	50-75	10

安 裝 實 例
Embodiment of the Installation

圓錐形混合機
Nauta Mixer

裝載前表面粗度檢測工作
Inspection and Check of the roughness of the Surface before Loading

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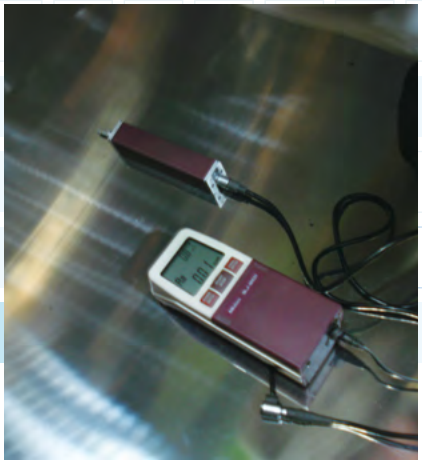
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全國容積最大直排式圓錐形混合機（操作容積 8000 Litre）

Straight Conical Mixer of Nationwide Maximum Volume (Operation Volume of 8000 Litre)

安裝步驟圖 Step of the Installation

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華 穎 精 密 機 械
Huayin Precision Machinery

華穎公司由一群在化工、食品、製藥等業界食物工作 20 年以上之專業人士所組成，公司設于桃園縣龜山鄉復興路三段 206 號華亞科學園區內，另有一位生產基地位於台北縣泰山鄉坡雅頭路 35-6 號，提供客戶綜合粉液體工程，精密機械設備，整廠規劃設計製造及售後服務。

主要產品有粉碎機、分級機、混合機、乾燥機、集塵機、捏合機、反應槽、旋轉閥、防架橋裝置及各種輸送設備等，具有 G.M.P 等級，適用於化工、食品、製藥、電子、生化等相關產業。

本公司備有各種實驗機可供測試，歡迎來電洽詢，竭誠為您服務。

Huayin Precision Machinery operating team was made up of professionals with over 20 years experience in the Chemical, Food and Pharmaceutical Industry. The company located in No.206, Fusing 3rd Rd., Gueishan Township, Taoyuan County, Taiwan R.O.C. and also set the factory in No.35-6, Poyatou Rd., Taishan Shiang, Taipei County, Taiwan R.O.C.

We handled an extensive range of machinery equipments, such as Mill, Mixer, Dryer, Dust, Collector, Separator…etc. The equipments are all with the G.M.P. certification to be suitable for use in Chemical, Food, Pharmaceutical, Electronic and Biochemical Industry. In addition, we also give service to the customer about the Comprehensive Powder and Liquid Engineering, Precision Machinery Equipment, All Project Design Planning and After-sale Service.

And our company also will supply various experiment machines for any tests. Welcome your calling and hope the chance can to do the service for you.