

BG-600/150

High Efficiency Coating Machine



**EQUIPMENT
TECHNICAL PARAMETER**

南京翰洋智能设备有限公司
NANJING HANYOO PHARMATECH CO., LTD.



BG-600/150 High Efficiency Coating Machine

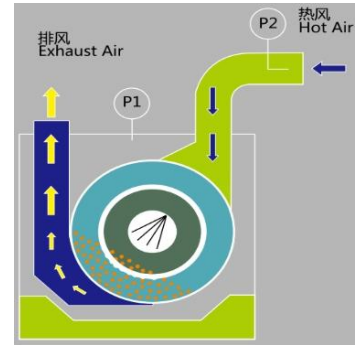


EQUIPMENT OVERVIEW

High-efficiency coating machine BGB type is a special equipment for film coating of Chinese and western medicine tablets. The equipment is manufactured in accordance with the requirements of "GMP" of the pharmaceutical industry; all the shells, coating drums (coating pots), hot air fans, spraying devices and all the parts in contact with the drugs are made of stainless steel. The whole process is controlled by microprocessor programmable system, or manually operated. The control system is equipped with a variety of applications, operating state selection, automatic control of speed and air inlet temperature system, coating machine pot negative pressure and hot air velocity manual operation touch screen control, display complete and working condition record printing function. All coating operations are carried out in a closed state, no dust flying and spraying spilled liquid splash, is a high-quality and efficient, reliable, clean, energy-saving, easy to operate in line with the SOP operation of the new coating equipment.

Equipment structure

The complete set of equipment mainly consists of the main machine high-efficiency hot air cabinet, exhaust dust removal cabinet, electrical control cabinet, slurry parts (spray gun, peristaltic pump, mixing tank), control system and other components.



BG-600 Technical Parameters

sports event	unit (of measure)	Technical Parameters
Replaceable rollers	L	350/600L (refers to effective volume)
Coating capacity range	kg/lot	100-500 Vegetable stacking density of 1kg/dm ³
Discharge method		reversing outfeed
Coating deflector		6-piece removable
Coating applications		Suitable for water-soluble film coating, slow and controlled release coating, etc.
Coating drum speed	rpm	3-22
operating temperature	°C	Normal temperature~80
Heating medium (steam)	MPa	Vapor pressure 0.3~0.5
Steam consumption	kg/h	350
Host power	kW	4
Hot air cabinet power	kW	4.0
Exhaust cabinet power	kW	11.0
Peristaltic pump power	kW	0.18
Cleaning pump power	kW	5.0
Compressed air pressure	MPa	0.4~0.6
Compressed air consumption	m ³ /min	1.5
Cleaning water consumption	L/min	130
Power supply specifications		AC380V 50Hz 3P 5W
material (that sth is made of)		SUS316L stainless steel
surface treatment		Product contact surfaces mirror polished Ra≤0.4 μm; the rest sandblasted
noises	dB(A)	The whole machine operation noise is less than 75.
weights	kg	About 2200
working environment	temp	Air temperature of the working environment; 5°C ~40°C.
	humidity level	Relative humidity not exceeding 90% at a maximum temperature of 35°C
	height above sea level	Altitude not exceeding 2000 meters, relative air pressure not less than 79.5 KPa
Installation Requirements		The site should be equipped with a power supply, purified and dried compressed air source and other supporting drying

Standard Configuration Details

order	Part Name	Specification	branding	note
I. Control cabinets				
1	electronic control cabinet	CAB-850	made in China	
2	Central Processing Unit CPU	CPU SR60	SIEMENS	
3	Backup Power Module	SB BA01	Panasonic	
4	button cell	CR1025	SCHNEIDER	
5	emergency stop button	ZB2BS542C	SCHNEIDER	
6	master air compressor	EZD100E3050+ EZD-30185 Handle	SCHNEIDER	
7	PLC Air switch	IC65N-C10-3P	SCHNEIDER	
8	Mainframe Air Switch	IC65N-C65A-3P	SCHNEIDER	
9	air intake air vent	IC65N-C10A-3P		
10	exhaust air vent	IC65N-C20A-3P		
11	Water pump openers	IC65N-C16A-3P		
12	thermal relay	LR-D04/LRD14	SCHNEIDER	
13	fuse	RT18-32X	MRO	
14	relay (electronics)	PT270L24	SCHRACK	
15		PT570L24		
16		PT270T30		
17	Host Inverter	FC51-3kW	DANFOSS	
18	Hot Air Inverter	FC51-1.1kW	DANFOSS	
19	Exhaust air inverter	FC51-5.5kW	DANFOSS	
20	Switching Power Supply 1	PM-207-5A	SIEMENS	
21	S7-200 PLC expansion module	EM QR16	SIEMENS	
22		EM AR02		
23		EM AE08		
24		EM AQ04		
25	three-hole socket	DZ47X	Drexel	
26	alternating current contactor	LC1D09 / LC1D12	SCHNEIDER	
27	transformers	BK600	Wenzhou Jiuchuan	
28	filters	FT110-6	Fiorte (French town)	
29	Switching Power Supply 2	DR-120-24	MW	
30	memory card	SD-8G	KINGSTONE	

order	Part Name	Specification	branding	note
31	indicator light	XB2-BVM4LC	SCHNEIDER	
32	audible and visual alarm	AD16-22SM/R23	SIEMENS	
33	printer	HL2560DN	Brother.	
34	Three-color alarm light	SWTLF-BZ-3	Q-LIGHT	
Second, touch screen control box				
1	touchscreens	TP1200	SIEMENS	
2	key switch	ZB2-BE101C	SCHNEIDER	
3	audible and visual alarm	AD16-22SM	SIEMENS	
4	emergency stop switch	ZB2-BE102C	SCHNEIDER	
III. Mainframe				
1	Material contact material	SUS316	ocean of writing (archaic)	
2	touchscreens	TP1200	SIEMENS	
3	Coating Roller	600L	ocean of writing (archaic)	
4	Explosion-proof motors	YB3-100L2-4 4kW	Zhejiang Xinling Motor	
5	speed reducer	SKAF87-YB3-4P	Shun Tian Reducer	
6	Explosion-proof vision lamp	BAK51	Huarong Explosion-proof	
7	temperature sensor	WZPG-31 Pt100	Zhejiang Ozaki	
8	Dial Pressure Reducing Valve +	lr-d-o-mini-0-1.0mpa	FESTO	
9	solenoids	3V210-08-NC	AIRTAC	
10		4V230C-08		
11	Door proximity switches	PL-050	Taiwan Yangming	
12	pressure switch	PEV-W-KL-LED-GH	FESTO	
13	Differential Pressure Transmitter	268 ±500 Pa	SETRA	
14	pressure proportional valve	ITV2050-012N	SMC	
15	ball valves	G1/2	Wenzhou Yijian Valve Factory	
16	Pressure Reducing Valve + Gauge	AR2000+1.0Mpa	AIRTAC	
17	Drainage ball valve	G3/4	Wenzhou Chanvuan	
IV. AHU Air Handling Unit RGL6000				
1	Primary Panel Filter	Specification 1020×520×46mm G4	Feiuet	
2	Medium Efficiency Bag Filter	Specification 484×484×300mm-P5 F8	Feiuet	

order	Part Name	Specification	branding	note
3	High Efficiency Filter	Specification 484×484×220mm H13 Stainless steel frame temperature resistance 250℃	Feiuet	
4	differential pressure gauge	2000-500pa/2000-1Kpa	DWYER	
5	Steam heat exchanger	6R-13T-500 DN25	Shanghai Winmax	
6	Steam Angle Seat Valves	DN25	made in China	
7	Intelligent Positioner	1500 Series	made in China	
8	DOP Orifice Check Valve	kka3s-02m/kka3p-01f-1	SMC	
9	anemometer	Bi Trusteeship 160-8	DWYER	
10	Explosion-proof centrifugal fan	B4-72 4.5A	made in China	
11	Explosion-proof motors	YB3-90S-4 3.0KW	made in China	
V. Exhaust dust collector CP7000				
1	filter bucket	720×720×17	ocean of writing (archaic)	
2	Explosion-proof centrifugal fan	B4-72 4A	made in China	
3	Explosion-proof motors	YB3-132S1-2 5.5kw	made in China	
4	Dust-cleaning motor	ybsc71-2-4 0.37kw	Suzhou Wujiang Motor	
5	Explosion-proof junction box	BHD-51	Zhejiang Huarong Electric Appliance	
6	Filter Differential Pressure Gauge	2000-1KPa	DWYER	
VI. Spray gun and slurry transportation				
1	Spray gun assembly	930-1	German	
2	Explosion-proof peristaltic pump	RD120B	ocean of writing (archaic)	
3	mixing tank	DJ-120	ocean of writing (archaic)	
	pneumatic motor	2AM-NCC-16	GAST, USA	
	oil mist eliminator	AL2000-02	SNS	
VII. WIP Cleaning Pump Station QZ-8T				
1	Stainless steel multistage pumps	CDLF8-12 4KW	Southern Pumps	
2	Sanitary pneumatic ball valves	Q681F DN40	Born Fluid	
3	Sanitary pneumatic ball valves	Q681F DN15	Born Fluid	
4	Pneumatic actuated valves	TBN-083-SR	Boone Pneumatic	
5	Pneumatic actuated valves	TBN-052-SR	Boone Pneumatic	

order	Part Name	Specification	branding	note
6	solenoids	3V310-08-NC	AIRTAC	
7	Rotating spray ball	Φ50.8	made in China	
8	Rotating spray ball	d15-360-316lss-g1/8	Leoin (PRC state-owned	

Note: The specifications of the electromechanical components listed in the table are for reference, and the company reserves the right to replace them with brands and specifications not lower than those listed.

BG-150 Technical Parameters

sports event	unit (of measure)	Technical Parameters
Replaceable rollers	L	75/150L (refers to effective volume)
Coating capacity range	kg/lot	30~130 Pile density of 1kg/dm ³ for vegetal flakes
Discharge method		reversing outfeed
Coating deflector		2 Piece Welded, 2 Piece Removable
Coating applications		Suitable for water-soluble film coating, slow and
Coating drum speed	rpm	3-22
operating temperature	°C	Normal temperature~80
Heating medium	MPa	Vapor pressure 0.3~0.5
Steam consumption	kg/h	150
Host power	kW	3
Hot air cabinet power	kW	1.1
Exhaust cabinet power	kW	5.87
Peristaltic pump power	kW	0.18
Cleaning pump power	kW	4.0
Compressed air	MPa	0.4~0.6
Compressed air	m ³ /min	1.5
Cleaning water	L/min	130
Power supply		AC380V 50Hz 3P 5W
material (that sth is		SUS304 stainless steel
surface treatment		aces mirror polished Ra = 0.4 μm; rest sandblasted
noises	dB(A)	The operating noise of the machine is less than 75.
sizes	mm	see drawing
weights	kg	Approx. 1200
working environment	temp	Air temperature of the working environment; 5°C ~40°C.
	humidity level	Relative humidity not exceeding 90% at a maximum temperature of 35°C
	height above sea	Altitude not exceeding 2000 meters, relative air pressure not less than 79.5 KPa
Installation Requirements		The site should be equipped with a power supply, purified and dried compressed air source and other supporting drying

Standard Configuration Details

NO.	Part Name	Specification	branding	note
I. Control cabinets				
1	electronic control cabinet	CAB-850	made in China	
2	Central Processing Unit CPU	CPU SR60	SIEMENS	
3	Digital Output Module	EM DR08	SIEMENS	
4	Analog Input Modules	em ar02/em ae04/em ae08	SIEMENS	
5	Analog Output Module	EM AQ02/EM AQ04	SIEMENS	
6	Backup Power Module	BA01	SIEMENS	
7	button cell	CR1025	Panasonic	
8	switching mode power supply	PM207	SIEMENS	
9	Host Inverter	FC51-3.0kW	DANFOSS	
10	Hot Air Inverter	FC51-3.0kW	DANFOSS	
11	Exhaust air inverter	FC51-5.5kW	DANFOSS	
12	Inverter Panel	LCP11	DANFOSS	
13	master air compressor (electronics)	EZD100E+ Handle	SCHNEIDER	
14	PLC Air switch	IC65N	SCHNEIDER	
15	Vibration contactor	LC1D09	SCHNEIDER	
16	Cleaning contactors	LC1D09	SCHNEIDER	
17	Cleaning thermal relays	LR-D12C	SCHNEIDER	
18	Switching Power Supply 2	DR-75-24	MW	
19	transformers	BK600	Wenzhou Jiuchuan	
20	filters	FT110-6	Fiorte (French town)	
21	sockets	AC30	made in China	
22	fuse	RT18-32	made in China	
23	memory card	SD-8G	KINGSTONE	
24	audible and visual alarm	AD16-22SM/R23	SIEMENS	
25	indicator light	XB2-BVM4LC	SCHNEIDER	
16	emergency stop button	ZB2BS542C	SCHNEIDER	
27	printer	HL2560N	Brother.	
II. Mainframe				
1	Material contact material	SUS304	ocean of writing (archaic)	

NO.	Part Name	Specification	branding	note
2	touchscreens	TP1200	SIEMENS	
3	Wall-mounted control box	DKX900	ocean of writing (archaic)	
4	key switch	ZB2-BE101C	SCHNEIDER	
5	audible and visual alarm	AD16-22SM	SIEMENS	
6	emergency stop button	ZB2-BE102C	SCHNEIDER	
7	Coating Roller	75L, 150L	ocean of writing (archaic)	
8	Explosion-proof motors	YB3-100L2-4 3kW	Zhejiang Xinling Motor	
9	speed reducer	SKAF87-YB3-4P	Shun Tian Reducer	
10	Explosion-proof junction box	BHD-51	Huarong Explosion-proof	
11	Explosion-proof vision lamp	BSD100	Anja explosion-proof	
12	temperature sensor	WZPK-230 Pt100	Shaoxing Hongda	
13	Dial Pressure Reducing Valve + Pressure Gauge	Ir-d-o-mini-0-1.0mpa	FESTO	
14	solenoids	3V210-08-NC	AIRTAC	
15	solenoids	4V230C-08-NC	AIRTAC	
16	solenoids	4M310-08-NC	AIRTAC	
17	Door proximity switches	PL-050	Taiwan Yangming	
18	pressure switch	PEV-W-KL-LED-GH	FESTO	
19	ball valves	G1/2	Wenzhou Jianyi Valve	
20	Pressure Reducing Valve + Gauge	AR2000+1.0MPa	AIRTAC	
21	Drainage ball valve	G3/4	Wenzhou Jianyi Valve	
22	Pneumatic pressure switches	DPSP1-10020	AIRTAC	
23	Negative Pressure Sensor	C268	SETRA	

IV. High-efficiency hot air cabinet RGL4000

1	Primary Panel Filter	Size 1020×520×46mm G4	Feiuet	
2	Medium Efficiency Bag Filter	Size 484×484×300mm-P5 F8	Feiuet	
3	High Efficiency Filter	Size 484×484×220mm H13 Stainless steel frame temperature resistance 250°C	Feiuet	
4	differential pressure gauge	2000-500pa/2000-1Kpa	DWYER	
5	Steam heat exchanger	6R-13T-500 DN25	Shanghai Winmax	
6	Steam Angle Seat Valves	DN25	made in China	

NO.	Part Name	Specification	branding	note
7	Intelligent Positioner	1500 Series	made in China	
8	DOP Orifice Check Valve	kka3s-02m/kka3p-01f-1	SMC	
9	Airflow Sensor	EE650	E+E	
10	Explosion-proof centrifugal fan	B4-72 4.5A	made in China	
11	Explosion-proof motors	YB3-90S-4 1.1KW	made in China	

V. Exhaust and dust removal cabinet CP4500

1	dust bag	720×720×17	Xiao Lun Medicine Machine	
2	Explosion-proof centrifugal fan	B4-72 4A	made in China	
3	Explosion-proof motors	YB3-132S1-2 5.5kw	made in China	
4	Dust-cleaning motor	ybsc71-2-4 0.37kw	Suzhou Wujiang Motor	
5	Explosion-proof junction box	BHD-51	Zhejiang Huarong Electric Appliance Company	
6	Filter Differential Pressure Gauge	2000-1KPa	DWYER	

VI. Spray gun and slurry transportation

1	Spray gun assembly	PQ-150	ocean of writing (archaic)	
	airbrush	PQ-1 Φ1.0 Φ1.2	ocean of writing (archaic)	
	gun carriage	and matching tubing	ocean of writing (archaic)	
2	Explosion-proof peristaltic pump	RD120A	ocean of writing (archaic)	
	Explosion-proof motors	MBW02-YB018-C5	made in China	
	silicone tube	19x14/13x9/9x6	ocean of writing (archaic)	
3	mixing tank	DJ-60	ocean of writing (archaic)	
	pneumatic motor	2AM-NCC-16	GAST, USA	
	thermometers	WSS-411	made in China	
	oil mist eliminator	AL2000-02	SNS	

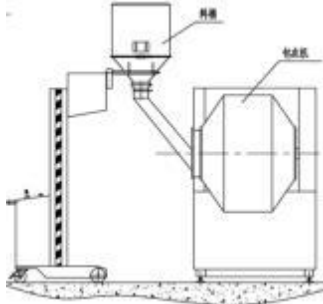
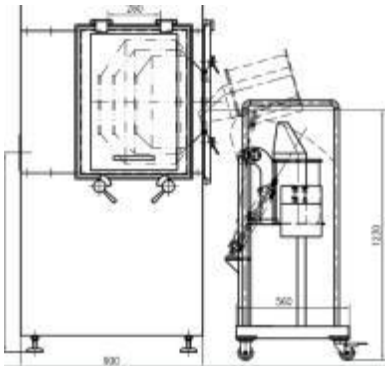

VII. WIP Cleaning Pump Station QBZ-8T

1	Stainless steel multistage pumps	CDLF8-12 4KW	Southern Pumps	
2	Sanitary pneumatic ball valves	Q681F DN40	Born Fluid	
3	Sanitary pneumatic ball valves	Q681F DN15	Born Fluid	
4	Pneumatic actuated valves	TBN-083-SR	Boone Pneumatic	
5	Pneumatic actuated valves	TBN-052-SR	Boone Pneumatic	

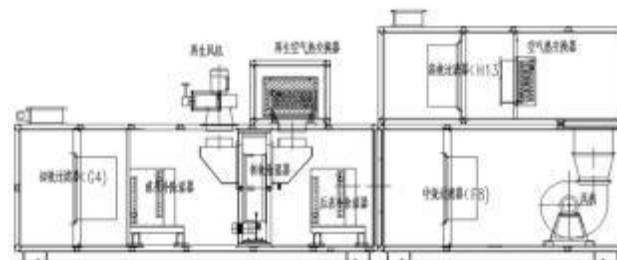
NO.	Part Name	Specification	branding	note
6	solenoids	3V310-08-NC	AIRTAC	
7	Rotating spray ball	Φ50.8	made in China	




Note: The specifications of the electromechanical components listed in the table are for reference, and the company reserves the right to replace them with brands and specifications not lower than those listed.

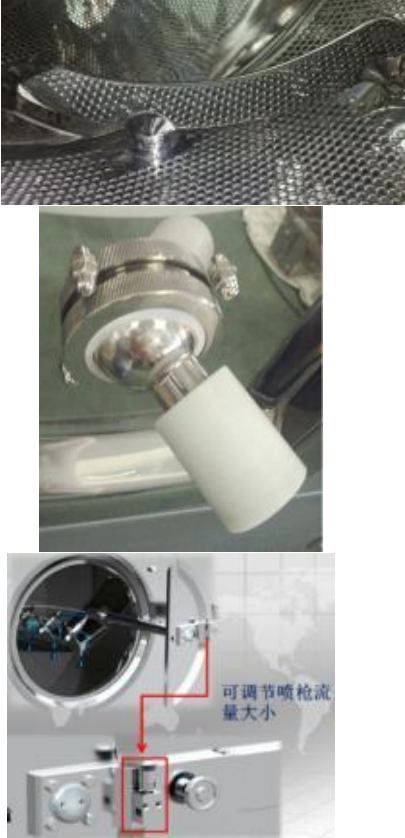
Structural and Functional Description

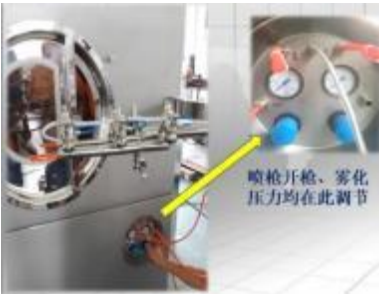



spor ts	basic composit	Standard Performance	Outline Structure Reference Diagram
Charging method	manual feeding		
	1) With mobile elevator JTY-100B feeding (including 100L drum) 2)Tipping and feeding machine JFY-A Feeding: electric feeding device, manually move the feeding device to the feeding position of the package host, operate the button on the body of the feeding machine to complete feeding The interface of the unloading device will be close to the inner wall of the drum of the coating machine and rotate with the drum of the coating machine, the particles will naturally flow into the unloading device and into the container of the finished tablets during the rotation (the receiving drum will be equipped by the demand side).		 


sports	basic composit	Standard Performance	Options: price subject to addition	Outline Structure Reference Drawing
	Rotor dehumidifi cation (Options)	<p>Relative surface cooling dehumidification, the user to provide $\leq 7\text{ }^{\circ}\text{C}$ cold water, absolute moisture content $D \geq 6\text{g / Kg}$.</p> <p>Structure: the dehumidification unit mainly consists of dehumidification rotor section, regeneration fan, regeneration heater, regeneration filter and processing fan section, surface cooling section, heating section, processing wind primary, secondary and high efficiency filtration section and cabinet.</p> <p>Material:</p> <p>The cabinet of the dehumidification unit adopts rigid aluminum alloy frame, which has the characteristics of good strength, compact and reasonable structure, and strong anti-corrosion ability. It also has measures to prevent "cold bridge" and avoid "condensation".</p> <ul style="list-style-type: none"> - The dehumidification unit adopts double-layer heat preservation board structure (the outer board is 304 stainless steel brushed board) (the inner board of the high-efficiency filtration section is 304 stainless steel brushed board containing high-efficiency partition board), with high-density heat preservation material sandwiched in the middle, and the reasonable design makes the heat preservation, fireproofing, strength, corrosion prevention and sound insulation effect reach the best. - The dehumidifying rotor of the dehumidifying unit is made of silicone media rotor. - The fan adopts a general brand high-efficiency and energy-saving centrifugal fan. - The surface cooler is made of copper tube material with hydrophilic aluminum fins. 		






sports	basic composits	Standard Performance	Outline Structure Reference Drawing
hosts	Coating Roller	<ul style="list-style-type: none"> - Surface for stamping mesh, diameter of 3mm round holes, opening rate $\geq 40\%$ - Material in contact with material 304 stainless steel - Equipped with a tablet bed temperature sensor; detects the actual tablet temperature value and displays it on the touch screen (HMI). 	
	spoiler (automotive)	Under the action of streamline deflector stirrer, the material turns over smoothly and exchanges frequently, eliminating the phenomenon of the pistil falling from the height and collision, eliminating the debris and knocking edge, and improving the rate of finished products. The narrow upper surface of the deflector plate avoids the adhesion of the dressing on its surface, saves the dressing and improves the quality of the medicine.	
	Mainframe Enclosure	<ul style="list-style-type: none"> - Inlet and exhaust air inlet design temperature sensor screen display - Acrylic glass front door window for a clear view of the production inside the drums - Top design LED explosion-proof light, easy to observe the coating state - Inverter-controlled drive motors for coating drums - Differential pressure detection in the drum, local differential pressure gauge display - Flow regulators - Manual drain valves are provided at the lowest point of the wash drain chute and wash pan. - Lower cabinet with emergency stop button and gun air control panel (with regulator, pressure gauge and spare connection) . - The upper box is equipped with a negative pressure sensor to detect the actual negative pressure inside the machine, negative pressure is automatically controlled and displayed on the touch screen (HMI). - Manual Sampler, Hermetic Sampling 	

sports	basic composit	Standard Performance	Outline Structure Reference Drawing
	both sides of the door	<ul style="list-style-type: none"> - Sealed with silicone strips - Gas spring type opening (hanging type if there is not enough space on both sides of the user, depending on the layout of the user's room) 	 <p>The images show: 1. A close-up of a metal mesh filter. 2. A close-up of a gas spring mechanism. 3. A control panel with a red box highlighting a switch, with Chinese text '可调节喷嘴流量大小' (Adjustable nozzle flow rate) next to it.</p>
	Rear & Bottom trans	<ul style="list-style-type: none"> - Rear: control wire junction box, compressed air distribution assembly, rotating chain, drain valve, etc. - Bottom: motor fan (explosion-proof type) 	

sports	basic composit	Standard Performance	Outline Structure Reference Drawing
Pulp spraying parts	airbrush	<ul style="list-style-type: none"> - For film coating, the aperture of spraying needle is $\phi 1.0$ or $\phi 1.2$ mm. - Two-way control: the gun is divided into two ways to control the firing, atomization pressure adjustable in two ways - Self-clearing function: the use of through-needle plunger design, with: when the phenomenon of blockage occurs during operation, as long as the air pressure is turned off for a moment, the needle in the tail of the spring under the action of the head of the spray gun to move, through the needle into the nozzle mouth can be removed from the clogging, an effective solution to the problem of dripping and clogging of the gun; the system can be set up to clear the gun time intervals, it takes a few seconds to complete the clearing action. - Nozzle 360 degrees adjustable: oval atomizing surface can be rotated 360 degrees according to the amount of feeding adjustable. - Anti droplet phenomenon: 0.3MPa air pressure to shoot, when shooting first open the gas and then open the dressing, shut down the gun first shut down the dressing and then shut down the gas. - The adjusting bolt at the end of the spray gun allows fine adjustment of the amount of slurry to be sprayed: - We have two national patents: ZL96206288.X and ZL96206289.8. - Needle 316L stainless steel, gun body 316L stainless steel, nozzle, nozzle sleeve made of titanium GMP compliant - Stop the slurry spraying system when the atomization pressure falls below the set value, and the pressure gauge shows. - 	   

sports	basic composit	Standard Performance	Outline Structure Reference Drawing
	peristaltic pump	<ul style="list-style-type: none"> - Explosion-proof peristaltic pump RD-120A - Material 304 stainless steel - Structural components: drive mechanism, pump head, pump wall, infusion hose and casing and other components. - The infusion hose is made of $\Phi 13$ and $\Phi 16$ standard silicone rubber tubes, which meets the requirements of food and drug quality standards and can be sterilized by autoclave; <p>parameters</p> <ul style="list-style-type: none"> - Maximum flow rate: ≤ 50 L/h; output pressure: 0.05-0.1 Mpa - Power: 180 W; medium temperature: 0-80°C - Speed: 40-200 r/min; hose diameter: $\Phi 13$, $\Phi 16$ mm - Standard peristaltic pump to increase the frequency converter to realize the speed of touch-screen adjustable. - Explosion-proof peristaltic pump, one gun, one pump head, frequency control RD-120B 	
	RD-120B	<ul style="list-style-type: none"> - Hanyang brand explosion-proof peristaltic pump RD-120B, frequency conversion control - Material 304 stainless steel - Structural components: drive mechanism, pump head, pump wall, infusion hose and casing and other components. - The infusion hose is made of special silicone rubber tube, which meets the requirements of food and drug quality standards and can be autoclaved; - Equipped with frequency converter to control the speed on the touch screen, digital display. - Technical parameters: maximum flow rate of 0.6L/min (water as a medium), speed 20-145RPM adjustable, hose 25 #, medium temperature to 80 degrees; 	 <p>(RD-120B Peristaltic Pump)</p>

sports	basic composit	Standard Performance	Outline Structure Reference Drawing
	mixing tank	<ul style="list-style-type: none"> - Single layer 304 stainless steel - Pneumatic mixing - Power supply voltage: three-phase five-wire: 380V - Mounted on four wheels, so the movement is flexible, and the design has a peristaltic pump fixing bolts, can be fitted with a peristaltic pump into one, easy to use. - Add-on METTLER electronic scale with METTLER. Toledo electronic scale (with trolley), the mixing tank is placed on the trolley of the electronic scale, the electronic scale is connected to the system to realize the touch screen display to show the instantaneous flow rate of the spray slurry and the cumulative flow rate. 	 <p>(single mixing tank)</p>  

Donaldson Cartridge Dust Cabinet



Brief description of equipment

Donaldson dust collector is a kind of dust collecting equipment suitable for continuous operation, it adopts modular design, the airflow direction is from up to down, which can prevent the filter material from backwashing, make the collected dust overflowing again, and produce the phenomenon of secondary pollution of the filter material, this is the biggest difference between it and the general market of the cloth bag dust collector, the filter material used is the cartridge type cartridge to increase the filtration area by the wrinkled surface, and with the microfiber cartridge material, it can reach 99.999% dust removing efficiency. Microfiber cartridge material, up to 99.999% dust removal efficiency.

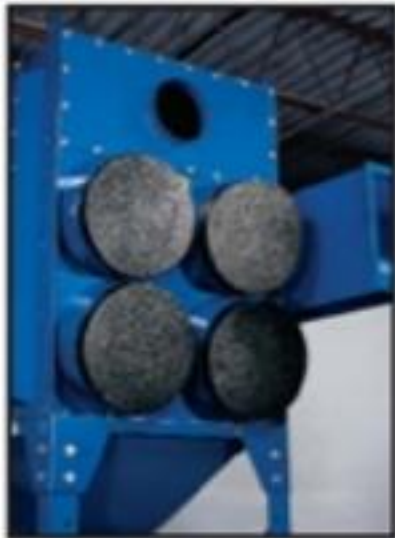
Working Principle

Under the action of the main fan of the system, the dusty gas enters into the air box at the bottom of the dust collector from the air inlet of the upper part of the dust collector for the


pretreatment of dusty gas, and then it enters into each dust chamber of the upper box from the bottom; after the dust particles with fine granularity and small density enter into the filtering chamber, through the combined effect of Brownian diffusion and sieve filtration, the dust is adsorbed in the outer surface of the filtering material, and the clean gas through the filtering cylinder enters into the net gas chamber of the box and is discharged by the exhaust pipe through the fan to the outlet (Figure). The clean gas through the filter cylinder into the clean gas chamber of the box body by the exhaust pipe through the fan convergence to the outlet discharge (as shown in the figure) With the filtration conditions continue, the dust accumulated in the outer surface of the filter cartridge will be more and more, and accordingly increase the operating resistance of the equipment, resistance with the filtration of the dust layer on the surface of the thickness of the layer and increase. In order to ensure normal operation of the system, the upper limit of the dust collector resistance should be maintained within the range of (e.g., 1400 to 1600 Pa), and when this limit is exceeded, the PLC Pulse Automatic Control should issue a command to clear the dust by means of a fixed resistance or a timed command. The cleaning process of this cartridge dust collector is the opening and closing of the pulse valve controlled by the PLC program. When the pulse valve opens, the compressed air in the air bag is ejected through the pulse valve through the small holes on the blowing tube with a high-speed and high-pressure induced air flow, thus forming an induced defective flow equivalent to 1 to 2 times of the volume of the induced air flow, which enters into the cartridge, resulting in an instantaneous positive pressure in the cartridge and generating bulge and micro-movement; the dust deposited on the filter material is dislodged and drops into the dust hopper, and the dust in the hopper is discharged through the ash unloading valve. The dust in the dust hopper is discharged through the ash unloading valve. The dust is cleaned in this order, and this way of cleaning is not only thorough, but also avoids the secondary adsorption of dust produced by blowing dust cleaning.


structural characteristic



Adopting advanced immersed-flow layout and diagonal mounting structure of the filter cartridge, the dust collector has good effect of synchronous dust cleaning during the working process, and the filter cartridge adopts the treatment of film coating, which has a purification efficiency of over 99.999% for the dust above sub-micron level and at the same time, it has the features of low operating resistance and long service life. The dust inlet is equipped with a dust baffle plate, which has a buffer and wear-resistant effect, so that the dust will not directly tell the impact of the filter cartridge, thus prolonging the service life of the filter cartridge. The 15 degree inclined installation of the filter cartridge can make the



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sports	basic composit	Standard Performance	Outline Structure Reference Drawing
containment systems	fabric	<ul style="list-style-type: none"> - By an operator interface, an electronic control cabinet, box material spraying plastic - Operating terminal with Siemens TP700 touch screen (mounted on the face of the main unit) - Electronic control cabinet is equipped with Siemens PLC S7-200smart series program controllers, air switches, relays, contactors, Danfoss inverters and other necessary control of all electrical appliances and all wiring - Needle printer as standard - Increase in touch screen size to TP900 or TP1200 - PLC control system with S7-300 - Equipped with UPS to maintain computer power for 15OR30 minutes - Increase the communication interface to connect with the host computer - with electronic sub-signature, recording function (i.e. with Siemens Audit software corresponding to Part 11) - A4 laser printers 	
	operating privilege	- Multi-level management of operation, process and management, privilege operation can be protected by password login	
	control function	<ul style="list-style-type: none"> - PLC program control, manual and automatic control programs - I/O Control Detection - Recipe setting, process parameter modification, recipe and process parameter storage - Automatic fault diagnosis system: overload, motor and other abnormalities occurring in the operation process alarm, while the relevant linkage protection - Control parameters with printing function 	
	Alarm Records	<ul style="list-style-type: none"> - Abnormal inlet air temperature - Warning: Inlet air temperature too low! - Warning: Intake air temperature too high! 	

sports	basic composit	Standard Performance	Options: price subject to addition	Outline Structure Reference Drawing
		<ul style="list-style-type: none"> - Warning: Exhaust air temperature too low! - Warning: Excessive exhaust air temperature! - WARNING: The gun is not on and the dosing pump operates continuously for more than 20 seconds! - Turn on the hot air before turning on the heat! - Before turning on the gun, turn on the main unit! - Failure of exhaust inverter - Abnormal exhaust air temperature - Hot air inverter failure - Abnormal hot air temperature, please check the sensor and module. - No compressed air, check - V i b r a t o r motor overcurrent Check the vibrator motor. - Failure of mainframe inverter - Abnormal negative pressure in mainframe 		

spots	basic composit	Standard Performance	Options: price subject to addition	Outline Structure Reference Drawing
WIP Cleaning (for BGB-D) (type of machine)	In-Line System	<ul style="list-style-type: none"> - Manual hand-wiping of the external surfaces of the main and auxiliary engines - WIP Online Cleaning System: The main machine is equipped with several fixed cleaning balls in the top air inlet and outlet of the upper chamber, and one rotary cleaning in the drum; - Increase the automatic control pneumatic butterfly valve in the air inlet and exhaust pipelines connected with the host; - Bypass valves for exhaust cabinets - The cleaning system has a circulating function for the cleaning medium. Cleaning media inlet: Detergent hopper and three other media inlets. - The control valves and infusion pumps of each inlet and outlet water (liquid) pipeline device are controlled by PLC, and automatically cleaned according to the set program. PLC can store a number of different cleaning programs for calling under different circumstances. The PLC can store a number of different cleaning 	<ul style="list-style-type: none"> -Purge water pressure and temperature screen or meter display -Conductivity test -Adding plate and frame steam heat exchangers to generate a hot water source -Additional purified water storage tanks 	 <p>(Cleaning of pumping stations)</p>
				 <p>(water storage tanks)</p>

	<p>programs to be called under different circumstances. Different parts of the host are configured with a number of spray heads for in-situ cleaning of the coating machine;</p> <ul style="list-style-type: none">- Configuration of independent cleaning fluid pressurization distribution station, to ensure that the pressure of the cleaning fluid shot from the shower head is up to 0.4Mpa, on the coating machine.		
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sports	basic composit	Standard Performance	Options: price subject to addition	Outline Structure Reference Drawing
		<p>Effective flushing. The booster pump is a residual liquid self-discharging type.</p> <ul style="list-style-type: none"> - Under PLC control, the residual water in each shower head is flushed out by compressed air. - Fully automatic drying process under PLC control. - Guns, connecting lines, air inlet and outlet hoppers inside the drum are disassembled and moved for cleaning. 		
	<p>Explosion protection (option)</p>	<ol style="list-style-type: none"> 1) The motors, fans and lighting of the equipment are explosion-proof. 2) Explosion-proof air inlet and exhaust air temperature sensors at the operation site 3) The solenoid valves involved in the operation site use explosion-proof solenoid valve coils. 4) Explosion-proof junction box for control line at the rear side of the main unit 5) The touch screen is suitable for explosion-proof environment in Zone II. 6) Emergency stop button adopts explosion-proof type button, 7) The internal control voltage of the wire adopts the safe voltage ≤ 24 volts 8) Each main and auxiliary engine is equipped with a grounding terminal. (9) The electronic control cabinet is not 		

	explosion-proof installed to the non-explosion-proof area		
other than	<p>The supplier will provide the connecting duct between the main and auxiliary machines to the ceiling 500mm, if the total length of the duct exceeds 10 meters according to the layout plan, the price of the exceeding part will be calculated separately;</p> <p>Cables are the responsibility of the user according to the pre-buried method;</p>		

Main and auxiliary engine table

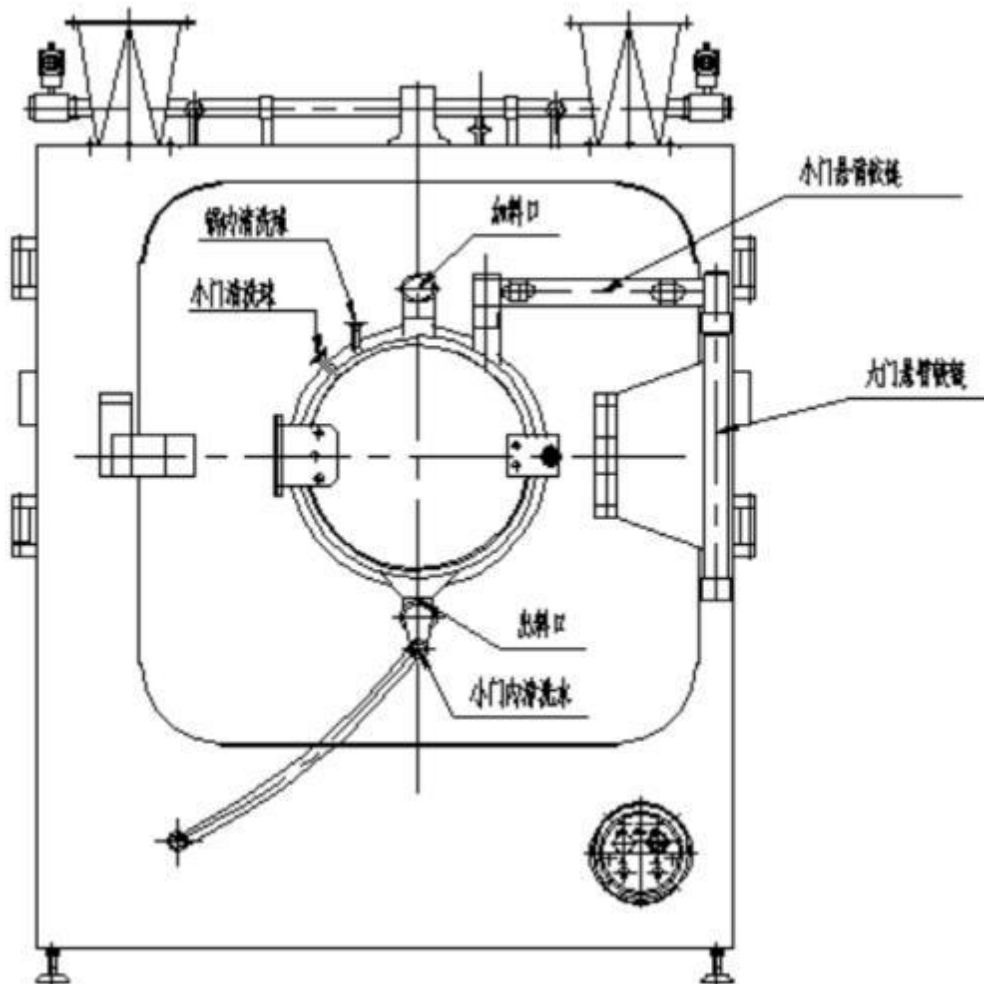
serial numb	name (of a thing)	model number	quantities	note
1	hosts	Model 600FD	1 unit	
2	High efficiency hot air cabinet	RGL-7000	1 unit	
3	air ventilating and dust removing cabinet	CP-7000	1 unit	
4	electric cabinet	DG-150FD	1 unit	
5	peristaltic pump	RD-120B	1 unit	
6	Spray gun 6 pcs + gun holder	PQ1	1 set	
7	mixing tank	DJ-120	1 unit	
9	Roller mobile stand	Model 600FD	1 set	

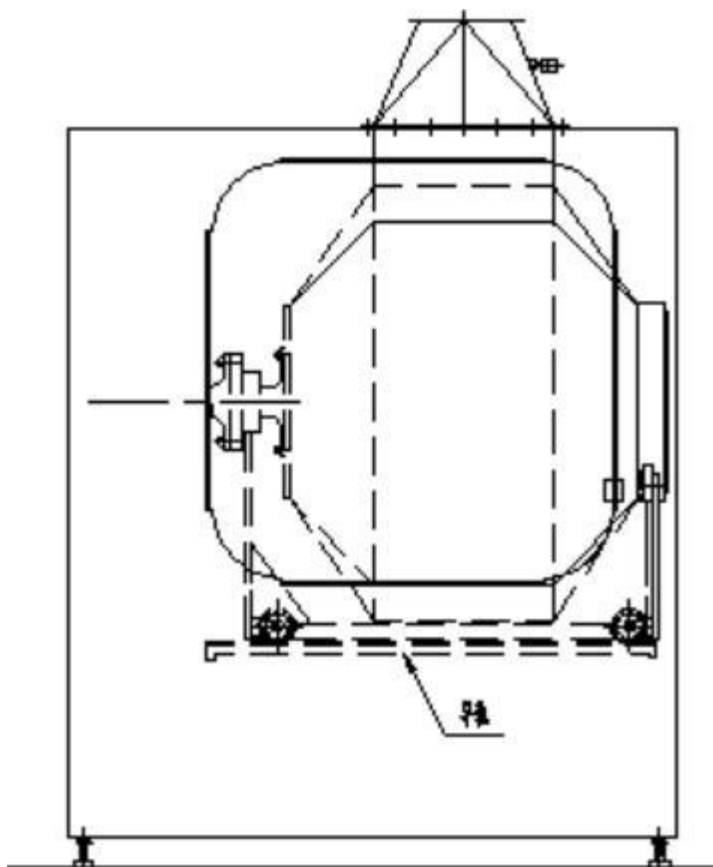
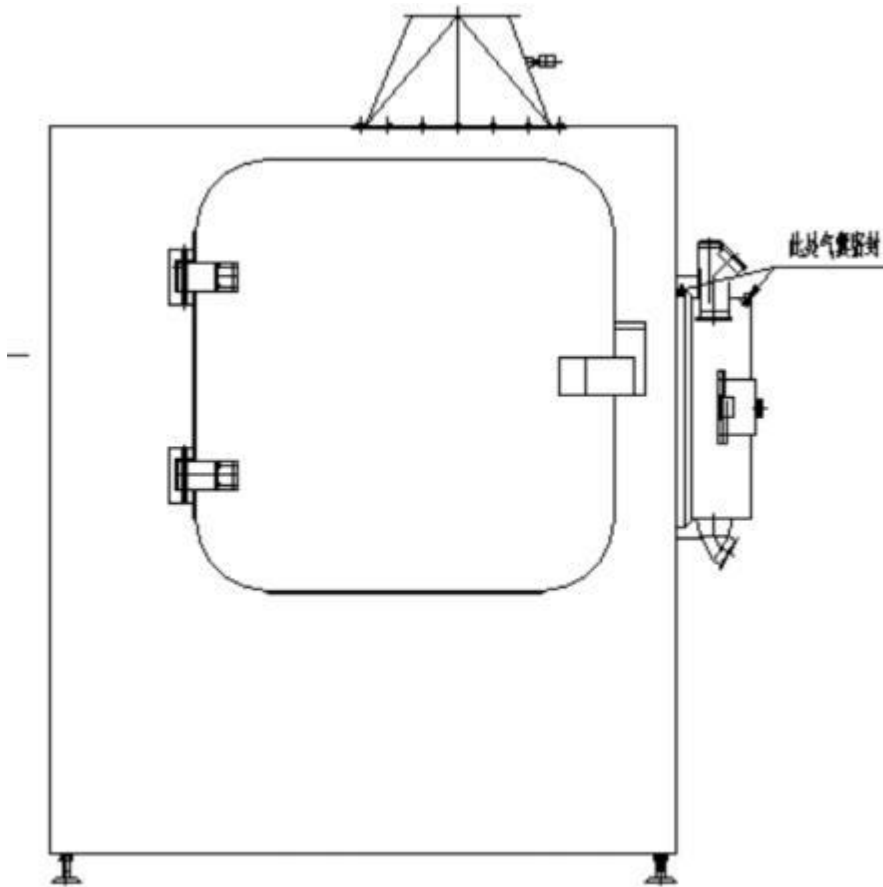
Note: 1. The supplier provides the connecting duct between the main and auxiliary machines within the ceiling;

2. The cable and casing between the main and auxiliary machines are provided by the user according to the actual pre-buried condition;

reference photo







A blue horizontal banner featuring various medical icons in a lighter blue color. The icons include a blister pack of pills, a medicine bottle with a cross, two crossed capsules, a pillbox, two pills, a syringe, and another blister pack.

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