Ji'nan ShengTai Painting Equipment Co.,Ltd.
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ST-500 Spray & Baking Booth — Technical Specifications	
Operative norm	Industry Standard of the Transportation Sector: *Automotive Spray & Baking Booth* (JT/T 324-2022) If local environmental impact assessment (EIA) requirements are higher than national standards, local EIA standards shall prevail.
(L×W×H)	L:7000×W:4000×H:3000
(L×W×H)	L:6900×W:3900×H:2600
Air volume	⩾26000m³/h
Load wind speed	⩾0.25m/s
Air changes	⩾300 times/h
Lighting Lux	⩾800Lux
Paint baking temperature	⩾80℃
Air purification efficiency	(EN779)98%
Noise	⩽75dB(inside the working area)
Total power	≈46kw
Gate sssembly	The internal frame of the door is made of reinforced galvanized steel plates, bent and welded for high structural strength and stability. The exterior is finished with color-coated steel panels, ensuring both durability and an attractive appearance. The main entrance consists of three metal swing doors, each

	measuring 1000 × 2500 mm, finished in light gray (color optional), and equipped with tempered glass observation windows.
Work Gate (W×H)	（W*H）:650*1800mm；The door frame is formed from bent steel plates with internal reinforcement ribs and a tempered glass viewing window, ensuring operational safety.
Building System	Wall panels are constructed from 50 mm thick double–sided coated rock wool sandwich panels, with 0.4 mm color steel sheets on both sides, finished in light gray. The roof panels are made from 0.6 mm bent galvanized steel sheets.
Top System	The top structure adopts galvanized bent steel sheets assembled with bolts into a **double–layer main beam**, providing excellent stability. The secondary beams are formed from bent galvanized steel, welded and powder–coated for durability and aesthetic appearance. The ceiling support grid is welded from steel profiles and powder–coated, with **insert–type filter cotton installation**, allowing easy replacement while maintaining a clean and well–organized structure.
Base system	Base height: 300 mm Enclosure panels made of 0.8 mm bent and welded galvanized steel

	plates Two rows of 30 × 5 mm flat steel gratings, surface galvanized, load capacity 800 kg per wheel Three rows of 1.8 mm galvanized checker plates, reinforced underneath with welded stiffeners for enhanced load–bearing capacity Bottom beams made of 1.8 mm galvanized steel plates, offering high structural strength
Lighting System	Four groups of ceiling lights installed on both sides of the roof, each group equipped with eight 24 W fluorescent lamps, totaling 32 × 24 W lamps. Each light is fitted with tempered glass lamp covers and explosion–proof protective mesh.
Air supply System	Equipped with one 7.5 kW Jiangsu European–style direct–coupled high–capacity turbo fan, with explosion–proof inlet. Total air volume: 26,000 m^3/h.
Air purification System	A two–stage filtration system is adopted, combining primary filtration (air inlet filter) and medium—high efficiency filtration (ceiling filter). Primary filtration: Specialized inlet filter cotton capable of capturing

	dust particles larger than 15 μm, installed at the air intake cabinet with an access door for easy replacement. Ceiling filtration: CC–800XU high–performance filter cotton with filtration efficiency exceeding 98%, ensuring indoor dust particle size below 5 μm. Key Technical Parameters: Initial resistance: 30 Pa Final resistance: 450 Pa Average collection efficiency: 98% Dust holding capacity: 450 g/m² Thickness: 20 mm Effective capture of particles > 5 μm
Exhaust system	Configured with one 7.5 kW Jiangsu European–style direct–coupled turbo fan, explosion–proof inlet. Air volume: 26,000 m³/h Static pressure: 550 Pa Speed: 960 rpm Environmental Protection — Stage 1: One layer of fiberglass filter One layer of honeycomb activated carbon adsorption

	Fiberglass filter parameters: Initial resistance: 15 Pa Final resistance: 250 Pa Dust holding capacity: 3500 g/m² Heat resistance: up to 150°C Environmental Protection — Stage 2: One layer of honeycomb activated carbon adsorption Activated carbon characteristics: Features large specific surface area, low airflow resistance, well–developed micropores, high adsorption capacity, and long service life. Pollutants in exhaust gases are effectively adsorbed, achieving efficient air purification.
Cabinet configuration	Control cabinets are fabricated from 50 × 50 mm galvanized square tubes, welded and fitted with single–layer external doors. Air supply cabinet size: 2000 × 1100 × 2200 mm (L × W × H) Exhaust cabinet size: 1500 × 1100 × 1500 mm (L × W × H)
lamp heating	Internal heating is provided by 10 sets of explosion–proof nano radiant heaters: • 8 sets on both sides • 2 sets at the rear

	Each heater set is rated at 3 kW, with a total heating power of 30 kW. Independent circuit control enables targeted local baking while improving energy efficiency and environmental performance.
Wind duct configuration	Standard configuration includes: 1 reducer 3 sections of 600 × 600 mm square ducts 1 elbow
Electronic control system	The system includes functions such as spray painting and baking timers, main power switch, lighting switch, heating switch, fan switch, fault indicator lights, leakage protection, and emergency stop switch.
Other configurations	Installation options include **in-ground or above-ground** installation. For above-ground installation, **external or internal ramps** are available. External ramp dimensions: **2000 × 750 mm (L × W)**, two sets.
Heating system option	
natural gas heating	Imported Riello FS20 natural gas burner, with a heat exchanger made of 1.2 mm thick stainless steel plates. The cabinet is welded from square steel tubes with double-layer insulated and soundproof panels.
diesel heating	Imported **Riello G20 diesel burner**, with a heat exchanger made of **1.2**

	mm thick stainless steel plates. The cabinet is welded from square steel tubes with double–layer insulated and soundproof panels.

How a Furniture Curing Booth is Used

When it comes to operation, automated spray coating lines are the ultimate advantage of furniture baking booths. Motorized carriers equipped with automatic transverse spraying devices move at a constant speed, ensuring uniform and stable coating quality.

With an intelligent control system, operators simply set the parameters, and the spraying and baking processes are completed automatically—efficient, accurate, and user–friendly.

Please provide detailed information so that we can provide you with a more accurate solution:

1.What are the Maxminum and Minimum dimensions of your workpieces (L × W × H)?

2.What is the maximum weight of each workpiece? If available, please also provide product photos.

3.How many workpieces do you plan to coat per day (based on 8 or 16 working hours) or per month?

4.Which heating source do you prefer, such as electric power, diesel, fuel oil, or natural gas?

5.What are the dimensions of your workshop (L × W × H)? If possible, could you share a layout or drawing of the facility?

6.Prior to coating, do you require spray pre–treatment to prepare and clean the product surface?

7.What voltage and frequency standards are used in your country?

Please also share your WhatsApp or another instant messaging contact so we can communicate more efficiently.

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