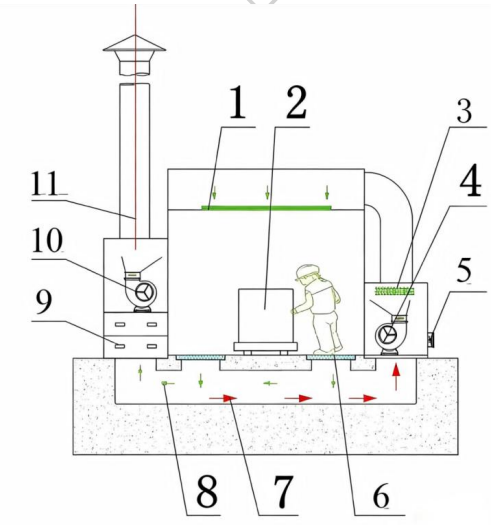
Fixed_Spray_Bake_Combined_Spray_Booth

1. Working Process

The spray-bake combined booth integrates **spraying mode** and **baking mode** dual-mode operation, adopting **top-supply bottom-exhaust laminar airflow organization + full-process automatic control** design. It can complete spraying, leveling, and baking of the entire process in the same enclosed space without transferring workpieces, achieving integrated coating operations.

Spraying Process: Supply fan and exhaust fan start in linkage. Outside fresh air enters the plenum chamber after primary filtration. After uniform pressure dust removal through top filter棉, laminar airflow curtain wraps the workpiece from top to bottom, effectively suppressing paint mist diffusion. Paint mist enters the paint mist purifier through underground ducts for pretreatment, then is purified by activated carbon adsorption before compliant high-altitude emission. The entire process keeps uncontrolled emissions under control.

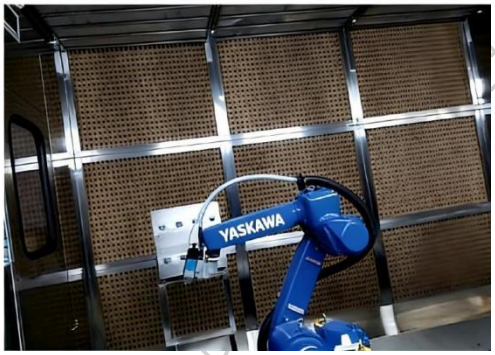
Drying Process: Adopts **hot air circulation heating** mode. System automatically closes fresh air valve and opens return air valve. Heated by electric / fuel / gas heating device, hot air uniformly covers the workpiece through the plenum chamber. Most heat is recycled for reuse. Temperature and time are automatically controlled by the system, maintaining constant temperature and timed shutdown, energy-saving and efficient. Heating method and supply/exhaust airflow form can be customized according to site condition



Spray-Bake Combined Booth Working Principle Diagram

1. Top filter cotton
2. Spray painted workpieces
3. Air heater
4. Inlet fan
5. Fresh air regulating valve
6. Ground grille (which may include baffles and filter cotton)
7. Direction of airflow during drying
8. Spray painting dust removal airflow direction
9. Activated carbon exhaust gas purifier and catalytic combustion equipment
10. Exhaust fan
11. Air duct



2. Core Parameters

Operating Mode: Spraying Mode / Baking Mode (one-key switch)

Airflow Organization: Top-supply bottom-exhaust, laminar airflow curtain

Heating Method: Electric / Fuel / Gas heating (optional)

Control mode: fully automatic linkage control, temperature timed control

Purification Configuration: Paint mist purifier + activated carbon adsorption purification

Filtration Configuration: Primary filter + top plenum chamber filter

Supply Air Form: Customized design (top supply, side supply, etc.)

3. User Guide

Before starting the equipment, check filters, heating system, fans, valves, and safety devices.

Spraying mode: Automatically starts supply/exhaust and purification systems, maintains stable airflow, orderly collects and processes paint mist. Drying mode: System automatically switches to hot air circulation, according to process-set temperature and time, no manual supervision required. Regularly clean paint residue, replace filters and activated carbon, check heating elements, ducts, and sealing status.

Strictly follow the sequence of stopping spraying first, then extended purification operation, then shutdown, to ensure residual exhaust gases are fully discharged.

4. Product Advantages

Spray-Bake Integration, Saves Space and Process: Complete spraying + drying in one booth, reduce workpiece transfer, improve efficiency.

Laminar Airflow Curtain, No Paint Mist Diffusion: Reasonable top-supply bottom-exhaust airflow organization, clean working environment, compliant environmental standards.**Hot Air Circulation, Energy-Saving and Efficient**: Heat recycling, precise temperature control, lower energy consumption, uniform drying.

Fully Automatic Operation: Dual-mode automatic switching, temperature timing control, linkage protection, simple and stable operation.

Strong Customization: Heating method, supply/exhaust airflow form, and size configuration can be flexibly designed according to site conditions.

Reliable Purification: Paint mist pretreatment + exhaust adsorption dual protection, meets emission requirements.

5. Applicable Industries

Suitable for **automobiles and parts, engineering machinery, hardware products, sheet metal parts, molds, metal furniture, electric vehicles, small rail transit parts, machinery equipment shells** and other coating production scenarios requiring **spraying + drying integrated** operations.

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