Automatic Powder Coating Line

ST-APCL-01M

Typically, spray painting refers to powder coating, which utilizes high-voltage static electricity to polarize molecules of powder coatings. Using an electrostatic spray gun, synthetic polymer powder coatings such as polyester, polyamide, or epoxy are applied to the surface of workpieces that have undergone pretreatment (such as phosphating) for coating. The workpieces are then passed through a baking oven to form a durable, corrosion-resistant film layer.

Key Attributes	Details
Product Name	Paint coating line system
Device Name	Automatic reciprocating spraying machine
Model Number	ST01
Brand Name / Place of Origin	ShengTai / Shandong
Type	Coating Production Line, Electrostatic powder spraying equipment, Painting Equipment
Application	Automotive, Agriculture, Robotics, Electronics
Operating Mode	Automatic

Coating Type	Powder Coating (Electrostatic powder spraying)
Substrate	Steel
Pretreatment System	Dipping/Spraying/Shot Blasting
Powder Booth Material	PP, Stainless steel, PVC
Powder Recovery System	Mono-cyclone + Pulse recovery
Powder Recovery Rate	98.9%
Color Change Time	20 min
Coverage Area	150 sqft/lb
Dry Time	1 hour
Voltage	380 V, 220 V
Power (W)	1500
Weight (KG)	1500
Dimension (L*W*H)	Customized
Single Package Size	5000×2000×900 cm
Core Components	PLC, Engine, Bearing, Gearbox, Gear, Pressure Vessel, Motor
Machinery Test Report/ Outgoing-inspection Video	Provided
Warranty	1 Year

Characteristics:

1. This system provides a tailored answer for applying finishes to exceptionally lengthy items. Its standout element is a floor-based transfer device engineered for the autonomous handling of parts. Working in tandem with a buffering and transport arrangement, it achieves fully mechanized part feeding and removal.

2. The curing chamber is constructed following an angled, staggered accumulation line design.

This approach shrinks the external surface area prone to heat loss, thereby optimizing energy conservation. Furthermore, dual heating assemblies are positioned on the chamber's flanks. This placement fosters an even distribution of internal airflow channels, more effectively guaranteeing uniform temperature equilibrium across all zones within the chamber.

3. The spraying paint application employs an oversized cyclone rapid color change mechanism. This allows operators to swiftly alternate among various colors, with transition times achievable within a 5 to 20-minute window.

4. The spray guns utilize the Debelle brand. They are distinguished by high material throughput, superior

first-pass transfer efficiency, and simplified integration into a unified control scheme for the complete setup. This yields enhanced results for applications demanding heavy film builds and stringent automation standards.