

Advantages:

- Save 10% powder.
- Reduce the quantity of spray guns.
- Control coating film thickness variation within 10μ.



Reasons to Choose Baifu Powder Bell

- Bell cup head automatic cleaning design prevents powder residue from falling; the sealed air-blowing design avoids motor seizure and is currently under substantive patent examination.
- With a maximum of 110 kV and 100 μA high power, the powder achieves excellent charging and high transfer efficiency. One powder cup can replace nearly two conventional electrostatic powder guns.
- Production line setup requires nearly 50% fewer spray guns, reducing maintenance workload as well as powder hoses, powder pumps, and main units.
- On flat workpieces, film thickness distribution is highly uniform within $\pm 5 \mu\text{m}$, saving powder and improving surface quality.
- Both working and cleaning states feature an automatic pressure-holding system, ensuring no powder enters the bell cup turbine motor.
- The high-performance dual-turbine pneumatic motor, designed for powder coating environments, achieves paint-like atomization effects regardless of powder flow.
- Spray width can be adjusted either by varying rotation speed (optimal option, reduces air consumption) or by adjusting shaping air pressure.
- Spray parameters can be controlled via bus communication to adapt to workpiece changes, ensuring continuous, stable, and uniform coating.
- An integrated internal high-voltage unit eliminates the need for a high-voltage cable.
- Equipped with bell cup speed display and constant-speed system.
- Ring charging provides excellent powder charging, enhancing transfer efficiency.
- Optimized structural design with integrated bearing cooling further reduces air consumption (lower than conventional electrostatic powder guns).
- The SmartBell bell spray gun weighs only 1.7 kg (just one-third the weight of similar products) and has a smaller size.
- Features interchangeable, easy-to-maintain turbine components
- Easy disassemble powder bell cup.
- Highly wear-resistant materials, and fewer consumable parts.

Electrostatic powder bell spray gun

Model	XR-5b
EST voltage output	0~110 kV (negative)*
EST current output	0~100μA
EST controller	XR5-GCU
Working power	AC100~240V, Single phase 50/60HZ
Flow rate	Max.500g/min. Different base on pump, diameter/length of powder hose.
Max air consumption	12m ³ /h (Air requirements per gun: Powder supply air, rotation air, shaping air, flushing air)
Air joint diameter	Φ 8mm
Size & Dia. mm	Body 83 / Connector 97
Gun weight (Kg)	1.7Kg

*Positive voltage electrostatic output is a special product.

Typical application cases



Aluminum profile



Electric vehicle chassis



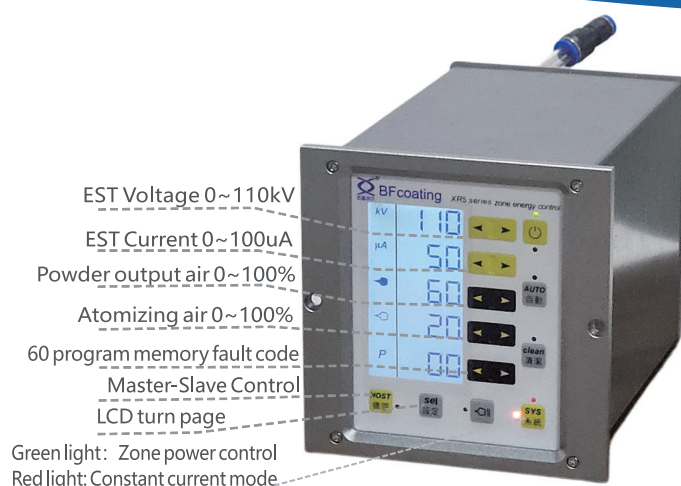
Control box



Bicycle fork

XR5 Intelligent All-Electronic Controller

- Max. industry static voltage (110Kv) and controllable minimum static current: Overcomes the "reverse ionization phenomenon" and the "Faraday cage effect" to achieve better powder application rates and surface quality.
- Two advanced electrostatic charging control systems: Provides users with more options to meet various process requirements.
- Automatic control of electrostatic current in localized power: When approaching a grounding point or workpiece, the electrostatic high voltage and current automatically decrease, preventing sparking and enhancing reliability and safety.
- High intelligence: Automatically adjusts electrostatic high voltage and current values based on distance, eliminating the need for manual setting by operators.
- Suitable for all types of powder: Particularly advantageous for spraying metallic powder with bell spray gun.
- Each controller uses 485/MobusRTU bus connections for data communication.
- When using multiple spray guns, the controller provides centralized control functionality, allowing one or more units to be designated as the main controller.
- Synchronized parameter adjustment in multi-automatic gun : Adjusts controller spray parameters, with auxiliary units synchronizing parameter changes.
- Built-in 3 pcs small electronic proportional valves in each gun: Precisely adjusts powder supply, atomization, and flushing air pressure.
- Spray formula: P-setting and storage (60 programs), recallable at any time.
- Pressing the cleaning button, high voltage shuts off and fully opens the electronic air proportional valve to clean the powder pump, hose, and gun interior.



XR5-GCU Controller

	Powder supply stainless steel tank		XR5 Trolley	
Model	PT50W	PT150	TY1	TV1*
Capacity	50L	150L		20L
Material	Stainless steel	Stainless steel	Coating	Coating
Photo			 Trolley	 Vibration Trolley

* Vibration motor is electric. Pneumatic motor is option.

Powder pump Application	Model	Tube size	Material	Flow rate	Max.pressure head	Recommendation
High flow rate	BJ-4B	Φ12/18	POE	350g/min.	3m	Auto spray gun

BJ-4

Auto spray gun equip: LV cable, powder hose 13M.

Other optional lengths can be selected as appropriate according to the size of the workpiece and application

PH Conductive powder hose

