

# BaiFu Tribo Charging Powder Gun

No farady Cage, Less Wear, Low Cost, Latest Powder coating Technical



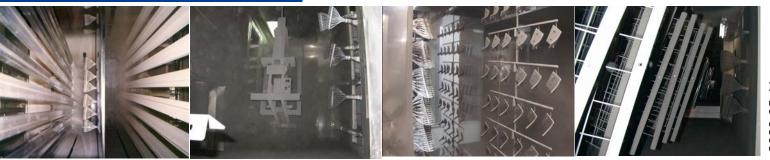
#### Tribo charging theory

Tribo charging spray is through high speed powder passing charging tube, by frictional contact between powder and material of gun body. The equipment composed by hopper, powder pump, controller and tribo gun. This equipment does not need a power supply and an electrostatic generator to generate high voltage or force the powder to be charged because the powder is self-frictionally electrified, so there is no electrode, and there is no strong electrostatic field between the spray gun and the workpeice during the coating. The independent small electrostatic field strength is very weak, which can only be called a weak electric field, and each paint particle is positively charged.

#### Comparison in Typical C-shaped steel structure Theoretical comparison **Performance Explanation** High transfer efficiency, total coverage, Tribo gun possible without touch up, small thickness Each single powder distributed tolerance, evenness, good surface appearance, powder saving weak field 20%~40%. More over spray, large recycled powder and Corona gun waste powder, poor coverage, combine with Electrode high manual touch-up gun, orange peel, uneven voltage film distribution, powder loss.

ltem	Subject	Main advantage	Item	Subject	Main advantage
1	Farady cage effect	Powder easy to penetrate into deep corner without "Farady cage problem" and "Fatty edges"	6	Multi-layer coating	No back-ionisation, as in heavy corrosion requirement, could do multi-layer spray without pin-hole, crater.
2	Automation feasibility	Superior penetration of powder into cavities, corners, and narrow sections, achieve No-Man auto powder coating	7	Workshope space	Weak electrostatic field, the art of powder speed control, give flat panel could be coated by piling in the conveyor direction, tremendous many time of production volume increased at same shop space.
3	Uniformly distributed	No "Farady cage effect" and back ionisation, 400µm high film can be reached in one coat, with certain powder material as lower as 30µm also possible.	8	Various application	Auto gun combine with each different sparayhead for multi-purpose coating job.
4		Weak HV, smooth powder cloud, large & uniform multifinger spray pattern, gives a superior finish without orange peel.	9	Powder Flow rate	Tribo charging gun output is less than corona charging gun. Because transfer efficiency high give same productivity, but relaxed recovery system, energy saving and maintenance less.
5	Electrostatic field	Each single charged powder particle create a weak field, through air force to point out each powder particle to stick on specified surface. Same thickness on inside and outside of cavities and corners, save powder 20%~40%.	10	Transfer efficiency	The transfer efficiency of tribo spray can exceed 80%. Tribo spraying is the most economical choice of powder coating for some coating cases that require high quality without recycling paint.

## No touch up powder coating plant



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### Baifu Automatic Tribo Frictional charging powder spray equipment

Specification of Tribo gun					
Model	T-1a				
Gun weight	1000 g				
Standard nozzle	260mm, 16 claw				
Compressed air	5~7 Kg/cm <sup>2</sup>				
Trasnfer efficiency	60~90 %				
Powder output	250 g				
Powder hose	10Øx5m*				

*Other	lengths	are	quoted	separatel	ly

## Advantage of T-1a:

- Best electrification effect, large powder output
- Less consumable parts
- Uniform atomization
- Variety of nozzles can be selected
- Interchangeable with old type spray guns

Specification of controller				
Model	BPS320			
Weight	3000 g			
Power source	220V, 50/60Hz			
Charging display	Digital display			
Compressed air	5~7 Kg/cm <sup>2</sup>			
Main cabinet	Optional			

#### Advantage of BPS320:

- Simple operation
- Compact in rack design, easy installation
- Charging current with digital display
- Comfortable 3 gauges design
- High reliable



F-1-0-300-16 Standard nozzle

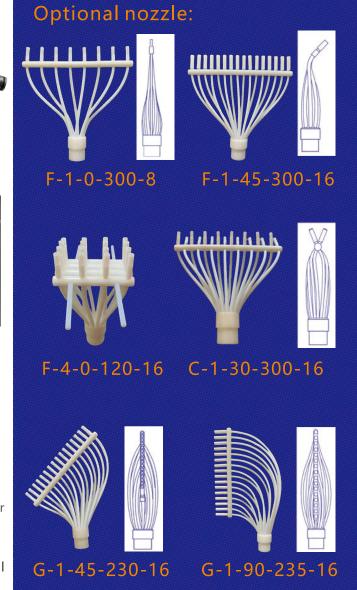


#### **BPS 320 Controller**



#### **Applications:**

- Architectural: Wire net, C-shaped bar, Aluminum extrusion, Rebar
- Illuminating instrument; Reflectors, indirect reflecting cover
- Metal house appliance: Steel shelves, drawer, OA furniture, Panel
- Auto components: Rain brush, Absorber spring, Aluminum Wheel
- Electric fan, electric heater, house appliance, etc





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