New Product

ASAHI SUNAC

Dual Electric Fields Powder Coating Hand Gun Unit

Ec'Corona-X Series

AXR100ST • AXR100DF • AXR100FB • AXR200ST • AXR200DF • AXR200FB Patent pending

Winning
2017 Technology Award from Japan Coating Technology Association

Dual electric fields as new charging method

Achieving both less powder usage and fine finish
Advanced powder coating hand gun

Powder coating hand gun
ECXm

Advantages of dual electric fields

Less powder used
Efficient electrostatic charging of powder and up to 10% increase of transfer efficiency has effects of reducing powder usage and touch-up coating.

Enhanced finish quality
Due to prevention of free ion formation with efficiency of electrostatic application maintained, it realizes smooth finish with less back ionization (electrostatic repulsion).

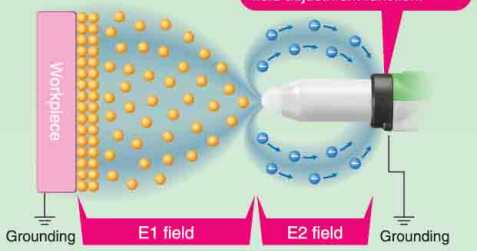
Improved usability
Downsizing of high-voltage generator realized 450 g which is 27% reduction in weight compared with the conventional type.

What is dual electric field method?

Through formation of dual (double) electric fields, the new method for electrostatic application ensures both of;
E1: electrostatic effect (high transfer efficiency) and
E2: coating film quality (prevention of electrostatic repulsion).

Dual electric field method

Ring for dual electric fields: is different from existing earth ring because it has the electric field adjustment function.



The ring for dual electric fields absorbs only excessive free ions to keep coating smooth for efficient powder particle adhesion.

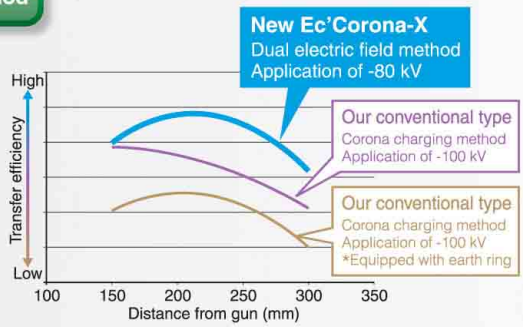
Free ion Powder particles negatively charged

In case of back ionization (electrostatic repulsion)

Excessive free ions induce back ionization on coating surface, reducing its smoothness.

Effect of dual electric field method

Capability to adjust electric fields with the dual field ring offers higher transfer efficiency and smoother finish even with -80 kV application compared with conventional -100 kV type application at any distance between workpiece and gun.



Coating conditions
- Powder: epoxy polyester
- Flow rate: 150 g/min
- Airflow rate: 70 L/min
- Conveyor speed: 1 m/min
- Gun speed: 10 m/min

*Conventional earth ring is optional, removing free ions to increase surface smoothness.

Unit variation

The unit suitable for your application is selectable fluidizing following.
- Partial fluidizing type
- Stirring hopper type
- Fluidizing type

AXR100DF
(Partial fluidizing type)

Ec'Coater エコーター

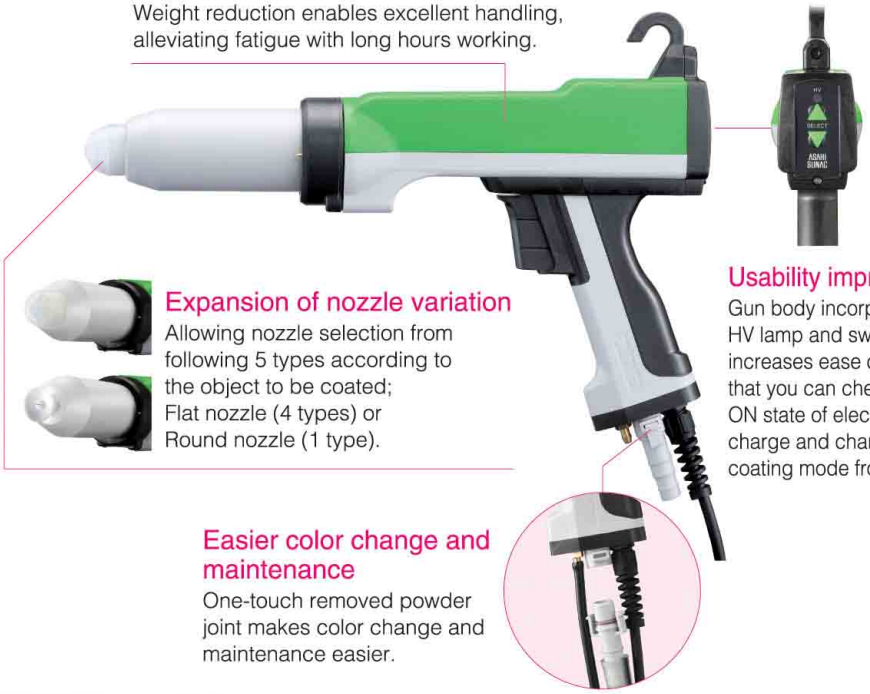
Aiming for eco-friendly and human-friendly coating

"Ec'Coater" is formed from the words "Ecology" and "Coater(coating machine)".
"Ec'Coater" represents our concept born through our corporate principle.

ADVANTAGES

Ec'Corona-X Hand Gun ECXm

Very light 450 g
Weight reduction enables excellent handling, alleviating fatigue with long hours working.



Expansion of nozzle variation
Allowing nozzle selection from following 5 types according to the object to be coated;
Flat nozzle (4 types) or
Round nozzle (1 type).

Usability improvement
Gun body incorporating HV lamp and switch increases ease of use so that you can check for ON state of electrostatic charge and change coating mode from the gun.

Easier color change and maintenance
One-touch removed powder joint makes color change and maintenance easier.

Ec'Corona-X
Static electricity controller
BPS810m

Coating recipe 99 + 3 settings available

99 recipes are available with the settings of voltage, current, flow rate, and powder conveyance airflow rate.
In addition, coating mode is selectable from 3 settings of flat, irregular, and recoat by constant current control. Each recipe can be changed from the gun.

SPECIFICATIONS

Hand gun unit

Model	AXR100DF 〈AXR200DF〉	AXR100ST 〈AXR200ST〉	AXR100FB 〈AXR200FB〉
Hand gun type	ECXm		
Charging method	Dual electric field method		
Maximum applied voltage	DC-80kV		
Flow rate	50 to 250 g/min (varies depending on powder properties and powder hose specifications.)		
Hand gun weight	450g		
Static electricity controller type	BPS810m		
Input power source	AC100V 50Hz/60Hz		
Current consumption	0.7A〈1.2A〉	1.0A〈1.5A〉	0.5A〈1.0A〉
Maximum air consumption	250L/min(ANR)〈500L/min(ANR)〉		
Air connection diameter	ϕ10 mm (L-shaped one touch joint)		
Input air pressure	0.5 to 0.6 MPa (recommended static pressure 0.5 MPa)		
Powder hopper and capacity	Partial fluidizing type (Capable to set powder maker's one powder carton (15 kg))	Stirring hopper type 35 L (Effective quantity 15 kg)	Flow type 60 L (Effective quantity 15 kg)
Unit dimensions(W x D x H)	550 x 788 x 1115mm	666 x 890 x 1120mm	550 x 788 x 1115mm
Unit weight	50kg〈58kg〉	65kg〈73kg〉	50kg〈58kg〉

Values within the angle brackets 〈 〉 show those for two-gun specification.
*Nozzle and hose are not included with the unit. They need to be arranged separately.

Please place an order with the hand gun unit.

Nozzle variation

Part name	Flat nozzle SN	Flat nozzle N	Flat nozzle W	Flat nozzle SW	Round nozzle
Part No.	15A5	15FE	15A6	15FC	15FF
Effective pattern width (Shape)	130mm	170mm	200mm	230mm	(Round)

Dedicated powder hose (with grounding wire)

Part No.	640-0000
Inside diameter	ϕ10mm
Remark	Sold by the meter

Tube for cleaning air

Part No.	586-0000
Inside diameter	ϕ4mm
Remark	Sold by the meter

Cautions for Safety For correct and safe use of the equipment, please refer to operation manual provided for it.

*Appearances and specifications of the equipment shown on this booklet are subject to be changed for the purpose of its improvement, without pre-announcement.

ISO9001
JQA-2095

ISO14001
JQA-EM2121

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