

Our wide product range enables selection of product best suited for the coating line.



# Electrostatic Automatic Gun Series

AIR ELECTROSTATIC AUTOMATIC GUN • ESA200VP, ESA200, ESA120, ESA100, ESA88, EAB200W-S, EAB90, EAB70T, APEG25



Rotary Electrostatic Automatic Gun  
SUN-BELL-ECOII ESA200VP



Micro Rotary Electrostatic Automatic Gun  
NC BELL ESA100

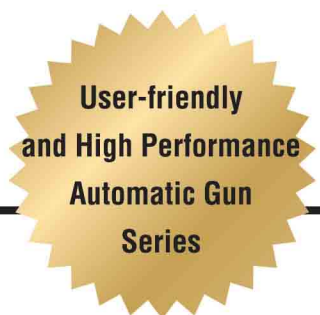


Aiming for eco-friendly and human-friendly coating

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

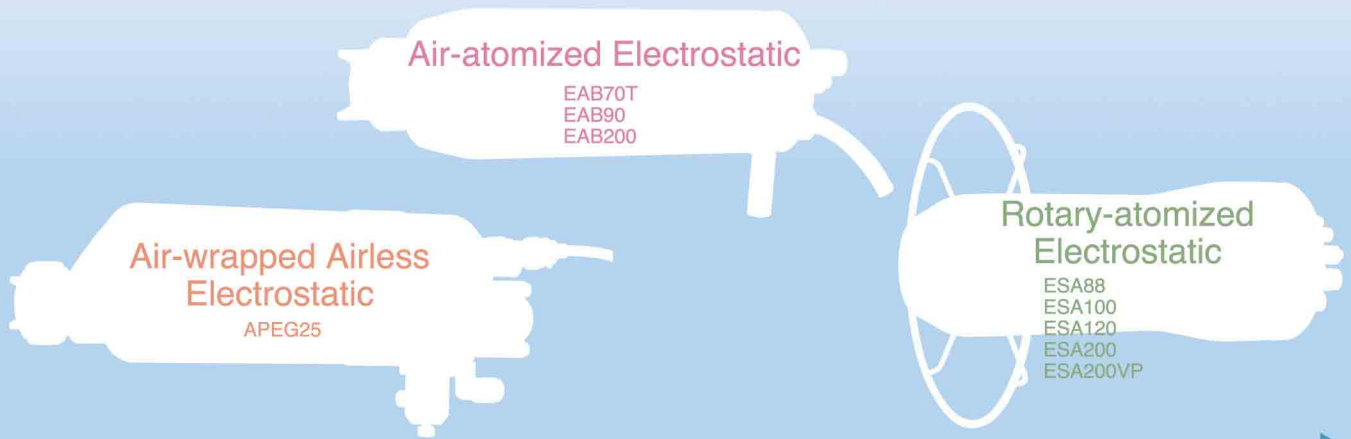
Our wide product range enables selection of product best suited for the coating line.

# Electrostatic Automatic Gun Series



Electrostatic Automatic Gun Series friendly to people and environment for its high transfer efficiency and superior coating quality

## We Offer Products for All Kinds of Coating Lines



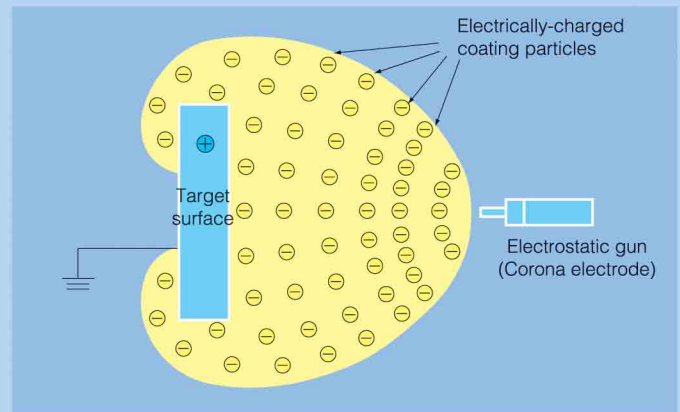
We offer a full range of accessories and peripheral equipment

CONTROL DEVICES, COATING ROBOTS, RECIPROCATORS

### What is Electrostatic Coating?

— A coating process that atomize and electrically charge the coating material —

Electrostatic coating is a process that atomizes and then efficiently charges the coating material. When the coating particles approach the surface to be coated, they are electrostatically attracted to the surface. Based on an air spray or airless coating method, electrostatic coating offers higher transfer efficiency. Major electrostatic coating methods are indicated below.

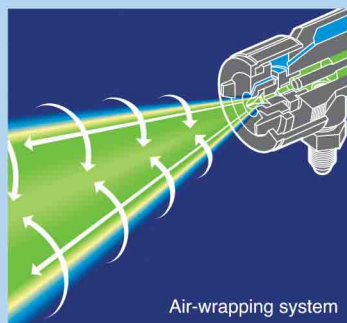


#### Air-atomized Electrostatic

A coating process that uses air to atomize the coating material sprayed from the paint nozzle. The atomized coating particles are applied with high voltage to coat the surface. This process is the mainstream of electrostatic coatings.

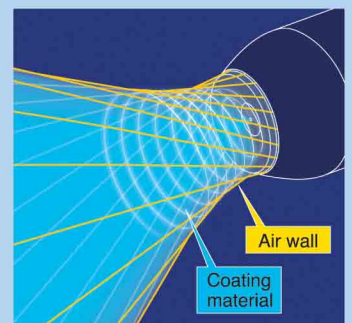
#### Air-wrapped Airless Electrostatic

The coating material is atomized by paint pressure of 2~16MPa and wrapped with low-pressure air sprayed from the air cap on the gun top. Efficiently, the spray pattern is electrostatically charged to coat the surface. The coating process offers high transfer efficiency and thick film coat.



#### Rotary-atomized Electrostatic

A coating process that uses centrifugal force to spread the coating material, which is sprayed from the center of the cup, on the conical cup edge. The electrostatic charging method is same as air electrostatic coating, however since the cup and air rotary device are applied with high voltage, the cup edge is used as an electrode. The process offers high transfer efficiency and high-quality finish.



## Rotary-atomized Air Electrostatic

Rotary Electrostatic Automatic Gun

### SUN-BELL-ECOII ESA200VP

highly functional, automatic gun that has adopted a variable pattern system to realize excellent coating efficiency.

- An air cap switchable between small and wide diameters produces an optimum coating pattern according to the product shape and thereby helps reduce the paint consumption.
- Even for products with many small details, excellent productivity can be achieved using a small pattern, which is useful for coating recessed details.
- The inside of the cup is cleaned by an automatic cleaning system between takt times even during a serial production run to remove the grit to be sprayed out of the gun and consequently contribute to the yield improvement.



#### Pattern variable



Rotary Electrostatic Automatic Gun

### SUN-BELL-ECO ESA200

Automatic gun with an angle on the gun top that provides both ensured verticalness to the coating surface and superior coating in every hole and corner

- The combination of bell cup and air cap brings uniform particle distribution and provides high quality coating film for design coatings such as metallic and pearl paints.
- The angle on the gun top improves robot handling and verticalness to the surface to achieve superior coating in every hole and corner and increased coating efficiency.
- The cup inner side automatic washing system enables shorter washing time using only a small amount of thinner which result in preventing defects due to foreign objects and improving the first run rate.



Micro Rotary Electrostatic Automatic Gun

### NC BELL ESA100

Automatic gun that offers superior atomization and high transfer efficiency by the combination of air cap and bell cup.

- High speed rotating air bearing (maximum rotation speed 80,000r.p.m.) offers superior atomization and even coating quality.
- The higher transfer efficiency helps improving the environment of coating line.
- Superior gun interior washing efficiency reduces washing time and amount of washing wastewater.



Rotary Electrostatic Automatic Gun

### SUN-BELL ESA120

Automatic gun best suited for metallic coatings with its newly developed air cap.

- The centrifugal force of new type air cup and bell cup enables superior atomization that offers high quality finish for metallic coatings.
- The new type bell cup offers superior transfer efficiency that will reduce paint consumption and improve the environment of coating line.
- Its unique shroud shape prevents adhesion of dirt and eliminate spraying clot from the gun and defectives due to dirt.



Rotary Electrostatic Automatic Gun

## ESPO-TURBO II ESA88

Compact size rotary atomization electrostatic automatic gun with simple structure.



- The base compound and hardening material are supplied separately from two paint valves. Mixed coating that use two coating material mixed inside the atomizing cup is available.
- The air motor equipped with a turbo fan offers Max.30,000rpm.
- Metal bellows is used for the paint valve to offer high responsiveness of coating material ON and OFF.
- This lightweight and compact rotary atomization electrostatic automatic gun has achieved remarkable results.

## Air-atomized Electrostatic

Air Electrostatic Automatic Gun

### ROBO-GUN II EAB90

Compact automatic gun with wide application suited for robot coating.

- Maintenance is easier for the gun and bracket can be removed and attached easily.
- The smooth structure prevents accumulation of coating material, improves washing efficiency and reduces fraction defective.
- Fully compliant with international safety standards. (EN)



Air Electrostatic Automatic Gun

### SUN-GUN II EAB200

Max. 90kV of applied voltage brings high transfer efficiency and superior atomization!

- Superior in safety for the built-in high voltage generator
- The easily removed valve unit enables easy maintenance in shorter time.
- We offer two types (with dump valve or without dump valve) according to your application.



Twin Head Air Electrostatic Automatic Gun

### TWIN GUN EAB70T

An innovative automatic gun that improved coating quality with two atomization heads and separate coating material paths.

- By overlapping two spray patterns, high quality coating is realized.
- The two individual coating material paths and coating spray control enables high quantity spraying and use of high viscosity coating materials.
- Applicable to high-speed production lines by the optimal spray control at the independently controlled built-in paint valves.



## Air-wrapped Airless Electrostatic

Air-Wrap Electrostatic Automatic gun

### APEG25

Air-wrap electrostatic automatic gun with higher coating efficiency due to air wrap and electrostatic effect

- The air-wrap electrostatic mechanism which brings greater coating efficiency reduces coating consumption and increases production efficiency.
- The high pressure coating up to 21MPa enables spraying of high viscosity coatings such as environment-friendly high solid coatings.
- Excel in safety for its built-in high voltage generator.



Car bodies



Automotive components



Appliances



Steel furnitures



Heavy vehicles



Construction machinery



Machines



Wood furnitures



IT Device



Plastic Products

# Automatic Coating Systems & Accessories

## Control devices for electrostatic coating



**BPS260**  
Electrostatic coating control device for EAB90, ESA100



**BPS290**  
Electrostatic coating control device for EAB70, EAB200, ESA88

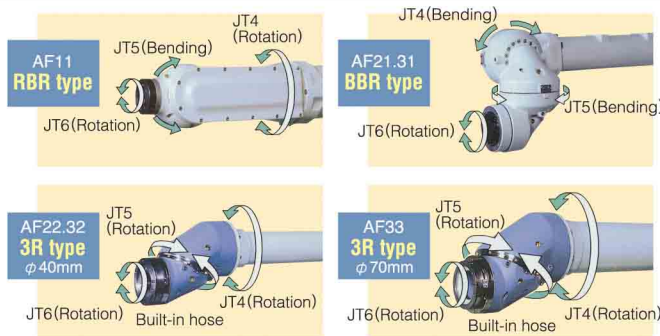


**BPS300**  
Electrostatic coating control device for ESA120, ESA200, ESA200VP

## Coating robots and controllers



Large Coating Robot AF32



**Variations of wrists**

We offer three types of wrists, RBR, BBR, and 3R.

\*3R (We offer two type of hose built-in type which inside diameter is  $\phi$ 40mm and  $\phi$ 70mm)



Spray controller (RCP)  
Robot controller (C55/C57)

## Reciprocators and controllers



YR type (Horizontal type) reciprocator



TR type (Lightweight type) reciprocator



SUNAC 2000 i



SUNAC 4000



SUNAC 4000 i

## Electrostatic automatic gun application table

★ 5 point scale    ◎ Optimal    ○ Appropriate    △ Available    — Not available

	Rotary-atomized Electrostatic					Air-atomized Electrostatic			Air-wrapped Airless Electrostatic
	ESA200VP	ESA200	ESA120	ESA100	ESA88	EAB200	EAB90	EAB70T	APEG25
<b>Characteristics</b>	High transfer efficiency	High transfer efficiency	High transfer efficiency	Thin film precision	General purpose atomization	Compact body	Multifunction	Twin head	Thick film coating
<b>Characteristics</b>	Finish	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★
	Transfer efficiency	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Processing capacity	★★★★★	★★★★★	★★★★★	★★	★★★★★	★★★★★	★★★★★	★★★★★
	Thick film coat	★★★★★	★★★★★	★★★★★	★	★★★★★	★★★★★	★★★★★	★★★★★
	Thin film coat	★★★★★	★★★★★	★★★★★	★★★★★	★	★★★★★	★★★★★	★★
Environmental responsiveness	★★★★★	★★★★★	★★★	★★★	★★★	★★★	★★★	★★★	★★★
<b>Adaptation</b>	Metallic / Pearl	◎	◎	◎	—	◎	◎	◎	—
	Solid	◎	◎	◎	◎	○	○	○	○
	Clear	◎	◎	◎	◎	○	○	○	○
	Primer	—	—	—	—	○	○	○	◎
	Secondary coating	○	○	○	○	◎	○	○	○
	Water based	—	—	—	—	△	○	○	—
	Emulsion	—	—	—	—	△	○	○	—
<b>Application</b>	Metal general	○	○	○	◎	—	◎	◎	—
	Small resin parts	◎	◎	◎	◎	○	○	○	—
	Automotive, Large size work	◎	◎	◎	—	—	○	○	○
	Wood work	◎	◎	◎	◎	◎	○	○	○
	Structure rust prevention	—	—	—	—	◎	—	—	◎

# Electrostatic Automatic Gun Series

## SPECIFICATIONS

### ●Rotary-atomized Electrostatic

Model	ESA200VP	ESA200	ESA120	ESA100	ESA88
Max. flow rate	500mL/min	500mL/min	400mL/min	200mL/min	600mL/min
Max. Out put voltage	DC-80kV	DC-80kV	DC-80kV	DC-60kV	DC-90kV
Air consumption	2,500L/min(ANR)	960L/min(ANR)	960L/min(ANR)	360L/min(ANR)	550L/min(ANR)
Max. turbine speed	60,000r.p.m. (no-load)	40,000r.p.m. (no-load)	40,000r.p.m. (no-load)	80,000r.p.m. (no-load)	30,000r.p.m. (no-load)
Length	432mm	432mm	310mm	274mm	571mm
Weight	5,450g	5,450g	3,200g	900g	4,600g (valve included)
Electrostatic Controller	BPS300		BPS260		BPS290

### ●Air-atomized Electrostatic

Model	EAB200W/S	EAB90	EAB70T
Max. flow rate	500mL/min	500mL/min	1,000mL/min
Built-in valve	Trigger/Dump valve (Trigger valve for EAB200S)	Trigger valve	Trigger valve × 2
Max. Out put voltage	DC-90kV	DC-60kV	DC-90kV
Air consumption*	360L/min(ANR)	360L/min(ANR)	600L/min(ANR)
Length	285mm	240mm	330mm
Weight	1,900g	1,400g	2,500g
Electrostatic Controller	BPS290	BPS260	BPS290

\*0.4MPa

### ●Air-wrapped Airless Electrostatic

Model	APEG25
Max. flow rate	1,000mL/min
Max. out put voltage	DC-90kV
Air consumption	150L/min(ANR)
Max. coating pressure	21MPa
Length	345mm
Weight	2,100g
Control Device	BPS290

### ●Electrostatic Controller

Model	BPS260	BPS290	BPS300
No-load generated voltage	DC-60kV±3kV	DC-90kV±3kV	DC-80kV
Power source	AC100~240V ±10%		
Power supply frequency	50/60Hz		
Operating temperature	0~45℃		
Dimensions H × W × D	120 × 300 × 230mm		120 × 300 × 220mm
Weight	4,000g		

### ●Rotary Controller

Model	TTC200
Turbine speed settings	10,000~120,000 r.p.m. (by 1,000 r.p.m.)
Power source	AC100~240V ±10%
Power supply frequency	50/60Hz
Operating temperature	0~45℃
Dimensions H × W × D	90 × 300 × 185mm
Weight	2,700g



### 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.



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ISO9001  
JQA-2095



ISO14001  
JQA-EM2121

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