

High-Speed Rotating Atomizer

EcoBell2 SL / *EcoBell2 SL M* for External Charging

Function *EcoBell2 SL* - External Charging with New Performance Parameters for Perfect Painting Results

The *EcoBell2 SL* (Straight Line) high-speed rotating atomizer is suitable for the electrostatic application of any water-based paint that is currently in use. It has been specially developed for increased painting capacity at faster paint flow rates and painting speeds.

The paint material that is atomized at the edge of the bell disk by centrifugal force is charged with high voltage using external charging electrodes.

Highlights **Faster Paint Flow Rates, High Quality**

Homogeneous atomizing of water-based paint at flow rates of 50 ml/min to 700 ml/min produces significantly greater painting capacity, whilst maintaining the surface quality that is expected from the *EcoBell* atomizer.

The *EcoBell2 SL* high-speed rotating atomizer uses the same innovative technology that is used by the *EcoBell2* for direct charging.

Maximum Application Efficiency

Up to an application efficiency of more than 95% and utilization of a high voltage range of 0 - 100 kV.

Machine and Robot Application

The *EcoBell2 SL* high-speed rotating atomizer can be used with side and roof machines and at the hand axes of the Dürr *EcoRP* painting robot.

Quick-Change Technology

Atomizers are easy to change because they can be released quickly and easily without having to undo hose and cable connections.

Optimised Bell Disk Purging

The inside and outside of the bell disk can be purged for maximum cleanliness.

Coordinated with the Painting Material

The combination of bell disk variants (centre hole, distribution disk, bell disk edge) and different nozzles (diameter, shape, hole) allows the paint materials that are being used to be processed in the best possible way.

Dual Shaping Air System

A dual shaping air system is available for optimum adaptation of the spray jet to the surface that is being painted (spray jet width 50 - 600 mm).



EcoBell2 SL
Atomizer



EcoBell2 SL
Atomizer
used in production
for painting
driver's cabs

Modular Design for Economic Maintenance

The modular design, ease of access to assemblies, automatic paint pipe centring, drive shaft locking for bell disk changes and plug-in technology at the bell disk make maintenance both cheaper and easier.

Effect Painting with the *EcoBell2 SL M*

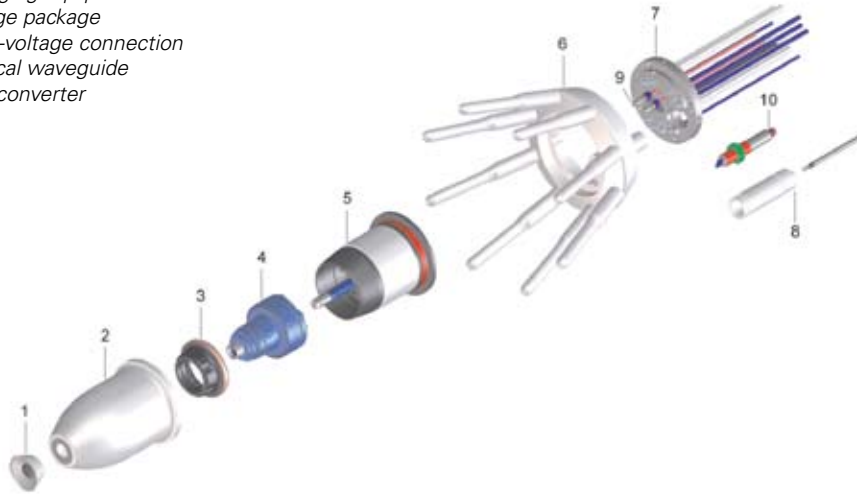
During effect painting the *EcoBell2 SL M* replaces the air atomizer, i.e. the metallic base coat is also applied using the ESTA painting method. This results in significantly better efficiency (air gun 30 - 40 % compared to *EcoBell2 SL M* 70 - 80 %) and little or no cloud formation.



Technical data

Assembly overview

- 1 Bell disk
- 2 Atomizer housing with integrated shaping air ring
- 3 Coupling ring
- 4 Bearing assembly
- 5 Control valve
- 6 Charging equipment
- 7 Flange package
- 8 High-voltage connection
- 9 Optical waveguide
- 10 O/E converter



Paint Material

All single-component water-based paints

Operating Modes

External body painting with high voltage
Plastic painting with high voltage

Gross Weight

With 6-electrode external charging 6.2 kg
With 8-electrode external charging 6.4 kg

Air Consumption**

Motor air*** 200 - 650 NI/min
Motor bearing air approx. 50 NI/min
Shaping air**** 50 - 700 NI/min
Typical values, shaping air
Exterior painting 50 - 300 NI/min
Plastic painting 500 - 650 NI/min

Paint Flow Rate**

EcoBell2 SL max. 700 ml/min
EcoBell2 SL M max. 350 ml/min
Typical usage range**
EcoBell2 SL 80 - 350 ml/min
EcoBell2 SL M 50 - 250 ml/min

* Optional, ** depending on paint material

*** Depending on flow rate and rotation speed

**** Depending on operating mode

Specific Painting Information

Painting distance (constant within range of)
External charging 220 ± 20 mm
Painting speed max. 1.2 m/sec.
Typical painting speeds 0.2 - 0.6 m/sec.

High Voltage

External charging: I_{const} 350 - 450 μ A
Corresponds to approx. during painting 70 - 90 kV

Speed**

Usable range 15,000 rpm to 70,000 rpm
Operating range
EcoBell2 SL 30,000 rpm - 55,000 rpm
EcoBell2 SL M 50,000 rpm - 70,000 rpm
Speed sensor Reflector disk

Features

Optimised bell disk purging (internal and external purging)
Bell disk change without tools
Paint pipe centring
Dual shaping air system*
Main needle feedback via optical waveguide*

Application efficiency of over 95 % possible**