



EcoBell3

High-speed rotating atomizer

FUNCTION

EcoBell3 – the new atomizer generation for the electrostatic application of paints, for better performance with less complexity. Due to its design, the **EcoBell3** family represents the ideal synthesis between high performance and process flexibility as well as minimum complexity.

The **EcoBell3** for direct charging is used for applying solvent-based paints. When applying water-based paints, **EcoBell3** represents the ultimate in continuous painting with external charging without complex and expensive electrical isolation. External charging technology is particularly suited to interior painting (**EcoBell3 Ci**) and exterior painting (**EcoBell3 E**).

The following operating modes are possible:

- Exterior painting with high voltage
- Interior painting with and without high voltage
- Metallic painting with and without high voltage
- Plastic painting with and without high voltage

HIGHLIGHTS



Continuous application of water-based paints without complex and expensive electrical isolation

High flexibility when forming the spray jet

Interior and exterior painting possible in one zone without changing the atomizer

High flexibility by integrating two separate paint feed lines up to the paint nozzle

Perfect integration into the painting robot

Short color change times with minimum paint loss thanks to the paint stop valve

2K technology with integrated 2K mixing technology

Technical data

EcoBell3

TYPICAL APPLICATION AREAS

	Exterior painting	Interior painting	Mixed-use zones with interior and exterior painting and plastic parts painting
External charging	EcoBell3 E 	EcoBell3 Ci 	EcoBell3 Cx 
Direct charging	EcoBell3 	EcoBell3 Hi 	EcoBell3 Hx 

Weight	
Direct charging atomizer	approx. 5.3 kg
External charging atomizer	approx. 9.3 kg

Air consumption * / **	
Shaping air 1	50 - 600 NL/min
Shaping air 2	50 - 600 NL/min
SA1 + SA2 combined	max. 1,000 NL/min

High voltage	
Direct charging: stable voltage	max. 100 kV
External charging: stable current -Voltage U_{max}	300 - 450 μ A 100 kV

Rotational speed *	
Usable range	8,000 - 70,000 rpm
Tachometer	Reflector disk

Specific paint data: painting distance **	
With high voltage	150 - 300 mm
Without high voltage	< 200 mm
Painting speed	max. 1.2 m/s

* Dependent on workpiece, paint material and/or flow rate, rotational speed, operating mode and quality requirements

** Values dependent on the bell disk/shaping air ring system used



**POSSIBLE TO ACHIEVE TRANSFER
EFFICIENCY OVER 95 %
ACC. TO DIN EN 13966-1 ****

CHARACTERISTICS

- Twin main needle (optional)
- Operation with 6-bar compressed air system *
- Optimized bell disk rinsing (interior and exterior rinsing)
- Dual shaping air system (optional)
- Compact paint control valves
- Paint stop valve
- Main needle mixer
- Diaphragm valve for 2K application

PAINT MATERIAL

- Water-based paint 1K, water-based paint 2K
- Solvent-based paint 1K, solvent-based paint 2K
- Multi-component paints

TYPICAL APPLICATION PARAMETERS

	Metallic base coat application second application	Bumper application	Clear coat (exterior painting)
Paint flow rate	50 - 300 ml/min	50 - 600 ml/min	450 - 700 ml/min
Painting speed	0.3 - 0.7 m/s	0.4 - 0.8 m/s	0.3 - 0.8 m/s
High voltage	with and without HV	with and without HV	70 - 85 kV
Rotational speed	30,000 - 70,000 rpm	8,000 - 60,000 rpm	30,000 - 60,000 rpm

Subject to change. The information in this brochure solely contains general descriptions and performance features, which may vary in specific cases of application. The desired performance features are only binding if they have been agreed upon explicitly at the conclusion of the contract. © Dürr 2021