

BEVS 1829 EXP Automatic Panel Sprayer

Can be used in accordance with: ASTM D823/A, GB/T 1727-92



BEVS Automatic Panel Sprayer are highly automated spraying devices designed to quickly produce uniform and consistent coatings, ensuring reliable testing and evaluation results. Widely used in industries such as automotive, aerospace, 3C electronics, furniture, appliances, crafts, and other coating application fields.

High Efficiency: It can prepare multiple test panels simultaneously, avoiding the time loss and low efficiency of manual spraying.

Superior Coating Quality: With precise spray-path control, it eliminates the deviations and uncertainties common in manual spraying and ensures excellent repeatability.

The machine is equipped with a 10-inch high-definition touchscreen for simple operation. It supports one-button start for fully automatic spraying, and one-button rapid spray-gun cleaning for quick material or gun changes. As an advanced, intelligently programmed spray-coating solution, it is the ideal choice for laboratory coating preparation in the coatings and materials industry.

Working principle: The system delivers coating material through a pressurised feeding unit to the spray gun, where it is atomised into fine droplets. The atomised coating is then deposited onto the substrate through programmable motion control. The machine integrates a feeding system, atomisation spray gun, control module, and motion mechanism, enabling automatic and repeatable spray application that replaces manual spraying.

Features

- Gun Distance: The distance between the spray gun and the sample panel can be set according to actual demand.
- Stroke: The appropriate spray stroke can be set according to the size/quantity of the sample panel.
- Spraying Speed: Different spraying speeds can be set according to different types of paint.
- Programming Function: Spraying processes for each paint type can be programmed and saved. Capable of spraying in two directions simultaneously.
- Numbers of Sprays: Spraying times can be set according to the coating process.
- Flash-Dry Function: Accelerates flash-drying time using air blowing.
- Spray Gun Type: Suitable for automatic or manual spray guns, compatible with single-gun or dual-gun operation (can spray two different types of coatings or use them alternately as needed).
- Spraying Air Pressure: Different air pressure can be set according to the requirements of each spraying process.
- Storage Function: Can be edited and saved for different models of spraying process, easy to check the spraying process of the same batch/model.
- Automatic control of spray speed, spray dimensions, and spray distance.
- Supports cross wet-on-wet spraying method.
- Spray-gun cleaning control.
- Custom spray mode: Allows input of parameters such as spray movement speed, gun distance, atomisation pressure, number of sprays, start and end spraying positions, etc. After confirmation, automatic spraying is performed according to the set parameters. Customised mode parameters can be saved for later recall.
- Real-time display of current parameters, number of sprays completed, remaining sprays, spraying air pressure, estimated remaining time, etc.
- 10-inch touchscreen provides an intuitive, user-friendly control interface for easy operation.

Technical Specifications

Parameter	Specification
Explosion-proof	Exd IIB T4Gb / ExD A21 T80°C / IP66
Coating type	Water-based or oil-based coating
Coating viscosity range	1 - 20000 cps
Gun distance	170 - 250 mm (manual adjustment)
Spraying speed	20 - 500 mm/s
Atomising air pressure	0 - 0.7 MPa
System air pressure	0.7 MPa
Feed pressure	0 - 0.7 MPa
Spraying area	Max 300 x 300 mm / 6 pcs standard panel 100 x 150 mm
Spray gun type	Auto spray gun / manual spray gun
Spray gun structure	Dual-gun combination, disposable no-clean pot unit
Spray gun clamp	2 sets according to spray gun model
Panel holder	Optional multi-purpose mesh panel holder, vacuum panel holder, magnetic panel holder, clamp panel holder, or customised panel holder
Equipment dimensions	(L) 1150 x (W) 1170 x (H) 1760 mm (including extension rod)
Power supply	220 V / 1.5 kW (two-phase four-wire)
Installation: site	Ambient temperature 10°C to 35°C, relative humidity 30 - 75%, floor space 1200 mm (L) x 1300 mm (W) x 1800 mm (H)
Installation: compressed air	Oil-free and water-free compressed air (under 0.7 MPa), flow rate greater than 1000 L/min, ensuring stable air pressure. If stable air pressure cannot be guaranteed, an additional air storage cylinder is required.
Installation: water curtain cabinet	Used to collect excess paint generated during the spraying process
Installation: discharge	Wastewater and exhaust gas discharge pipeline network

Packing List

BEVS 1829 EXP Automatic Panel Sprayer (including one panel holder)

Accessories

Optional	Description
Panel holder	Multi-purpose mesh panel holder, vacuum panel holder, magnetic panel holder, clamp panel holder, or customised panel holder
Water curtain cabinet	Dry water curtain cabinet. Voltage: 380 V, three-phase five-wire. Power: 1.5 kW, 50 Hz inverter (adjustable fan speed). Material: sheet metal with powder coating or 304 stainless steel
Waste gas treatment	Activated carbon waste gas treatment device
Compressed air	Compressed air (oil-free and water-free), oil-water separator, air storage tank