

E-CUBE A BREATHTAKINGLY SIMPLE SEPARATION SYSTEM

IMPRESSIVE PERFORMANCE AND EXCEPTIONAL EASE OF OPERATION – THAT IS E-CUBE, THE NEW PAINT SEPARATION SYSTEM FROM EISENMANN.

E-Cube is suitable for systems of all sizes and, due to its ingenious filter technology, operates without the need for chemicals, water or other additives – conserving resources and simplifying waste disposal. The cube-shaped design means separation modules require less space for storage; when fully assembled they fit on a europallet. E-Cube can be quickly and efficiently retrofitted to existing solutions that previously featured other separation modules.

Operating principles

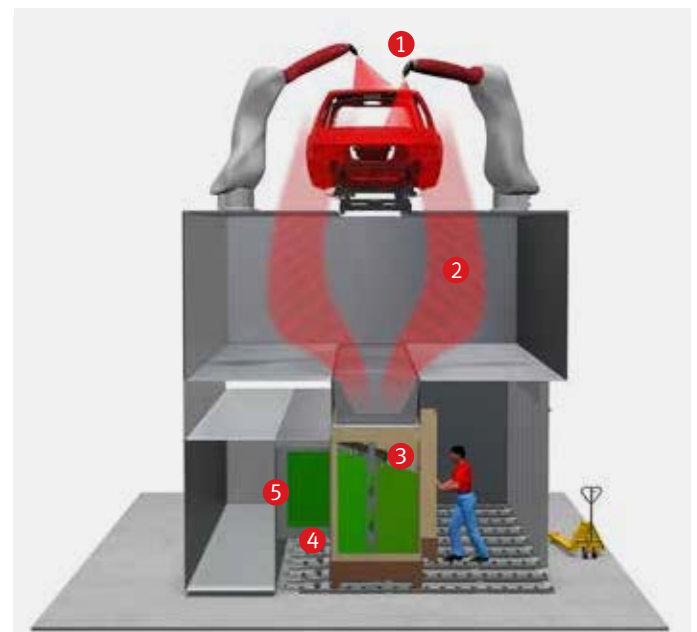
E-Cube is a mechanical overspray separation system situated below a grid in the spray booth. Air, contaminated with paint particles during spraying, is sucked in and routed through the separation system. As it passes through the separation modules, paint particles are removed from the air. There is a second filter stage after the separation modules (also known as 'cubes'), to increase the separation rate. Motorized shutters ensure that E-Cube modules can be individually removed and replaced during periods when the plant is not in use. System pressure is monitored to ensure steady, consistent operation, without cross-flow. It is possible to recirculate air or utilize a supply and exhaust air system.

Filters replace chemicals, water and additives

The separation modules are hybrid filters, consisting of surface and depth-type filters. Individual filter elements are arranged in such a way as to create a labyrinthine flow path. This configuration provides an ideal sequence of coarse and fine separation, ensuring an even distribution of particles in the separation module. Depending on the type of paint applied, the system can achieve a separation rate between 0.5 and 2 mg/m³ of air. Cubes have a high capacity and a service life ranging from one to several weeks, depending on the mode of operation. For example, a cube in a ten-meter long spray booth, operated in three shifts and producing 60 kg of overspray per hour, has a mean service life of one week.

Simple to operate

The cubes themselves are made mostly from recycled material and can be folded during storage and delivery to save space. What's more, they are easy to assemble and replace – this can be undertaken by unskilled staff. As E-Cube does not consume chemicals, water or other additives, waste and associated costs are significantly lower than for comparable separation systems.



- ① Spray booth
- ② Air, contaminated with paint particles
- ③ Cube
- ④ Second filter stage
- ⑤ Motorized shutters

E-CUBE

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OUR SEPARATION SYSTEMS

Separation system	3-stage dry filter	E-Cube	Venturi (circ.)	E-Scrub
Type	Simple, for small systems	Simple, no additives	Standard	Best separation, lowest pressure loss
Overspray capacity	0	+	++	++
Emmissions	0.5 - 2 mg/m ³	0.5 - 2 mg/m ³	< 3 mg/m ³	0.3 - 0.8 mg/m ³
Pressure loss	Rising	Rising	Constant	Constant
Operating and maintenance staff	Unskilled staff	Unskilled staff	Skilled staff	Skilled staff

Advantages at a glance

- A simple system that is ideal for use in large facilities
- Operation and maintenance can be carried out by unskilled workers
- Requires no chemicals, water or additives
- Can be retrofitted to existing systems
- Reduced waste

EISENMANN

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