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. A motor flap ensures that single Cubes can be exchanged independently of one another. 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, a separation rate below 1 mg/m³ air can be obtained. 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.
E-CUBE
A BREATHTAKINGLY SIMPLE SEPARATION SYSTEM

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.

Advantages at a glance
- Up to 24% lower capital expenditure as no additional systems are required*
- Up to 42% lower energy costs as the system is completely dry, making it simpler to condition the recirculating air
- Easy to use: filters can be replaced during ongoing operations simply by pressing a button

* such as pump units, dispensing stations, or containers