

■ Process: Dry Filtration of UV-Paint



Pic. 1: Dry filtration of UV paint



Pic. 2: Herding® filter system

■ The Task

In the wet coating of surfaces, the state of the booth air has a major bearing on the subsequent quality of the painted finish. The “state” of the booth air means its

- ▶ Temperature
- ▶ Humidity
- ▶ Lack of dust

The efforts made by manufacturers of paint filtration systems to keep these parameters constant have been very extensive in the past.

A very energy-intensive air-conditioning system is generally needed to meet the requirements for constant temperatures and humidity levels.

Another aspect which is becoming more and more important is to keep the booth air free of dust so as to be able to guarantee the required uniform finish quality for the products.

This means that the perfect coordination of the air within the paint booths provides a great deal of potential for reducing running costs.

■ The Solution

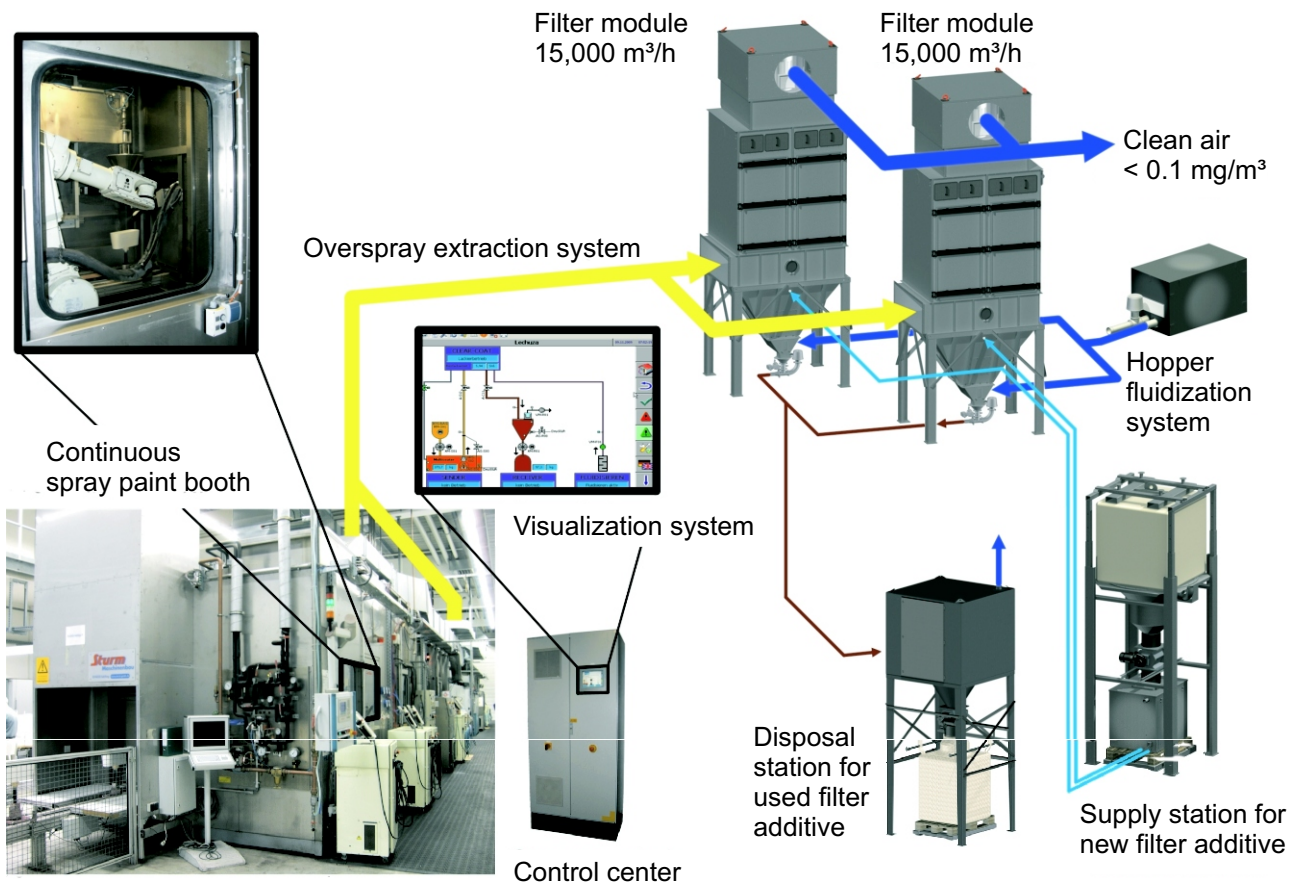
With this in mind, Herding® Filtertechnik has been looking at the subject of dry filtration of wet paints since the beginning of the nineties and supplies filter systems which contain the renowned Herding® sinter-plate filters.

A specially developed process protects the filter elements from contact with the paint by adding a filtration additive. This additive is inert, dry, pourable and low cost.

To ensure that the effect of layer formation on the surface of the filter is prevented, the filter additive is replaced constantly by means of an internal material circuit in the filter system, i.e. the material is applied to the filter elements in a defined cycle.

A filter cake with only low pressure loss forms even after the filter elements have been in use for many hours without being cleaned, and can be removed easily from the Herding® rigid body filter elements with compressed air using the jet-pulse process.

Herding® Dry Filtration of Wet Paints



Pic.3: Dry filtration of UV-paint

The Advantages

- ▶ Uniform booth air flows
- ▶ Constant humidity level
- ▶ No waste water treatment
- ▶ No expensive paint sludge disposal
- ▶ Extremely high separation levels
- ▶ Pure gas dust content <math>< 0,1 \text{ mg/m}^3</math>
- ▶ Constant pressure differential on the filter elements
- ▶ High plant availability for the production
- ▶ Downstream storage filters are not required
- ▶ Eco-friendly
- ▶ Low servicing costs
- ▶ High savings of energy and running costs
- ▶ Fast amortization of the system

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