Press release

Private research institute Rescoll in France offers tests with Dürr's EcoPaintJet

Overspray-free painting in the test laboratory

Bietigheim-Bissingen, 7 April 2022 – Big things start small: since late summer 2021, end customers have been able to test paints, substrates and the corresponding application for a low cost at the French research company Rescoll for compatibility with Dürr's EcoPaintJet in order to prepare optimally for series production. Dürr's overspray-free painting process has been on the market since 2019 and is already being used in the automotive industry. The tests offered should make it possible to use the EcoPaintJet in other industries as well.

Rescoll is a private company offering technological services at three sites in France – Pessac, Bayonne and Rochefort. With more than 7000 m² of laboratory space, the research company is able to conduct testing and industrial research on polymer materials applications in numerous industries. These include medical device, energy, transportation and construction. Rescoll works for its customers from the early stages of product definition and polymer formulation, but also in the context of regulatory qualification and material analysis through physicochemical analysis, mechanical testing, aging or fire tests, and for the validation of resistance under harsh environmental conditions.

Multi-stage test setup

Originally founded for the aerospace industry, the private research institute Rescoll, has increasingly opened up to other industries. In addition to the EcoBell2 equippped ready2spray robot, which has already been in use, Dürr's **Eco**PaintJet is now being added to the test portfolio at then Pessac laboratories. The test process takes place in several stages: First, the customer sends the relevant paint or substrate to Rescoll, where it is checked whether the material is suitable for carrying out the test at all, which is then performed. Once the test has been successfully completed, the results are sent to the manufacturer, who is then able to adjust the paints and substrates to ultimately adapt Dürr's technology. Dürr already refers to the possibility of testing inks as well as the substrates first at Rescoll in use with the EcoPaintJet in consultation meetings with its customers. If the results are satisfactory to the customer, a suitable integrator is then found in the integrator network who will bring the Dürr equipment to the customer's premises ready for operation.

Best practice from the automotive industry

As early as 2019, Dürr's overspray-free technology called EcoPaintJet was introduced in the automotive industry, where it is already being used in series production. The process is characterized by its high efficiency, as masking is completely eliminated. This is ensured by a completely new type of applicator that applies the paint with absolutely sharp separation. This means that the coating lands exactly on the intended surfaces, but not off them - even in very small quantities. What has already proven itself in the automotive industry is now to be used in other industries as well. All applications in which paint is applied in lanes are possible.

No more overspray

The **Eco**PaintJet achieves its high precision because the applicator works completely without overspray. This describes the paint mist consisting of tiny droplets that is produced by other atomizers and ends up outside the target area. In the case of the **Eco**PaintJet, a filigree nozzle plate measuring just a few square centimeters prevents overspray from occurring. The nozzle plate forms the underside of the rectangular applicator and is provided with around 50 barely visible holes, which have a diameter of around 1 tenth of a millimeter. The paint is applied in parallel jets from a distance of 30 millimeters through them.

EcoPaintJet paints live at PaintExpo 2022

PaintExpo is the world's leading trade show for industrial painting technology and gathers the who's who of the industry every two years. This year, the trade show will be held in Karlsruhe from April 26 to 29, where Dürr will not only be represented with an impressive booth but will even demonstrate the overspray-free technology live to visitors with its **Eco**PaintJet.



Figure 1: Dürr’s EcoPaintJet complements the test equipment at the private research institute Rescoll in France.



Figure 2: The EcoPaintJet is an innovative system for automated, overspray-free paint application.

**About Dürr**

The Dürr Group is one of the world's leading mechanical and plant engineering firms with extensive expertise in automation and digitalization/Industry 4.0. Its products, systems and services enable highly efficient and resource-saving manufacturing processes in different industries. The Dürr Group supplies sectors like the automotive industry, mechanical engineering, chemical, pharmaceutical, medical technology and woodworking industries. It generated sales of € 3.54 billion in 2021. The company has around 17,800 employees and 120 business locations in 33 countries. The Dürr Group operates in the market with the brands Dürr, Schenck and HOMAG and with five divisions:

* **Paint and Final Assembly Systems:** paint shops as well as final assembly, testing and filling technology for the automotive industry, assembly and test systems for medical devices
* **Application Technology:** robot technologies for the automated application of paint, sealants and adhesives
* **Clean Technology Systems:** air pollution control, noise abatement systems and coating systems for battery electrodes
* **Measuring and Process Systems:** balancing equipment and diagnostic technology
* **Woodworking Machinery and Systems:** machinery and equipment for the woodworking industry

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