Press release

Dürr building a CO2-efficient paint shop as a turnkey project for Volkswagen

Bietigheim-Bissingen, September 1st, 2025 – Dürr has built a paint shop designed to slash CO2 emissions at one of the Volkswagen Group’s biggest manufacturing facilities. The plant in Puebla, Mexico, was inaugurated in January 2025. The turnkey project includes two identical painting lines that are particularly environmentally friendly due to their electrified equipment, such as the electric drying system. Dürr is also implementing key components of its new “Paint Shop of the Future” concept with a high-bay warehouse and driverless transport systems.

Since January 2025, the Puebla Volkswagen plant paints 90 vehicle bodies per hour of different models. Dürr was awarded the contract in 2022. The innovative paint shop is engineered to seamlessly accommodate additional models and emerging future technologies. This adaptive capability aligns with the high-output nature of the production plant and is made possible by a central high-bay warehouse and the EcoProFleet driverless transport system. DXQ software controls the AGV (automated guided vehicle) developed specifically for paint shops that predictively sorts the bodies in combination with the high-bay warehouse and brings them to the right work deck or collects them with pinpoint accuracy. Dividing rigid production lines is a central tenet of Dürr’s “Paint Shop of the Future” concept and shortens the overall process by tailoring the process time exactly to the individual vehicle. This fact alone significantly reduces overall CO2 emissions.

Painting technology for high model variance

The two identical painting lines feature 170 sealing and painting robots, with the corresponding application technology for sealing and coating the different Volkswagen models in the future. This encompasses **Eco**RS Clean F, a prime example of Dürr’s efforts to bolster system technology to equip it for growing model diversity. It combines the thorough, gentle cleaning prowess of a feather roller system with the high flexibility inherent to a robotic setup. This makes it perfect for lines that paint many body variations with complex contours. The contract scope also includes the complete paint and PVC supply and software solutions with AI applications from Dürr’s proprietary DXQ product family.

Substantial reduction in CO2 emissions

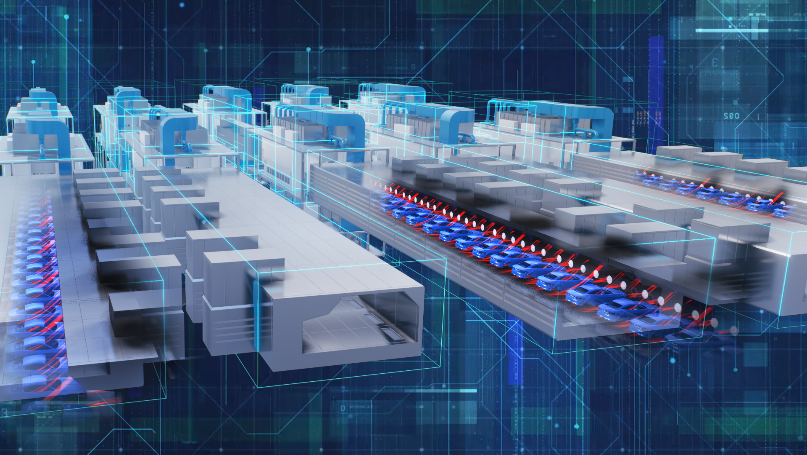
A central factor in CO2 emissions reduction is body drying since it consumes the most energy in the painting process. Operating the ovens with regenerative energy, like green electricity, reduces the CO2 emissions from the overall system by around 40 percent compared to a paint shop using natural gas. “This was one of the reasons why Volkswagen opted for the **Eco**InCure electric drying system,” explains Bruno Welsch, COO Automotive at Dürr. “Another is its special air duct system that heats the bodies from the inside out. This technology results in more uniform heating and cooling behavior and reaches solid body components like the rocker panels more directly than conventional systems, cutting the body heating times by 30 percent.”

Electric package concept for oven and exhaust air purification

Another cornerstone for minimizing CO2 emissions is linking the electric oven to an electric air pollution control system. Dürr is the only provider on the market with an overall blended concept of this kind. It combines the **Eco**InCure with an Oxi**.X**.RV, an electric exhaust air aftertreatment system that purifies the polluted exhaust air using the principle of regenerative thermal oxidation (RTO) – with no open flame. Unlike conventional combustion processes, no additional CO2 is produced by the operation. The system is also extremely energy efficient and achieves autothermal operation even with small quantities of solvent, i.e., it maintains its operating temperature by itself. It uses the significant energy produced during oxidation of the solvents to keep its process going.

Dürr has also installed an energy-saving, environmentally-friendly system for overspray separation. **Eco**DryScrubber uses limestone powder as a natural binder to separate paint overspray. Highly efficient HEPA12 filters remove all particles from the process air. The saturated limestone powder is disposed of fully automatically via a piping system – with no process interruption. The dry separation system at Volkswagen Puebla minimizes the required fresh air supply to 5 percent maximizing the proportion of recirculated air. This reduces the paint booth’s energy consumption by well over 60 percent compared with wet scrubbing.

Pictures



Picture 1: Dürr’s EcoInCure ovens operate with electricity, reducing CO2 emissions.



Picture 2: EcoDryScrubber uses limestone powder as a natural binder to separate paint overspray.

Ein Bild, das Maschine, Bautechnik, Im Haus, Techniker enthält.

Automatisch generierte Beschreibung

Picture 3: Dürr’s EcoRP painting robots will paint the Volkswagen bodies in Puebla in the future.

**About Dürr**The Dürr Group is one of the world's leading mechanical and plant engineering firms with particular expertise in the technology fields of automation, digitalization, and energy efficiency. Its products, systems, and services enable highly efficient and sustainable manufacturing processes – mainly in the automotive industry and for producers of furniture and timber houses, but also in sectors such as the chemical and pharmaceutical industries, medical devices, electrical engineering, and battery production. In 2024, the company generated sales of €4.7 billion. The Dürr Group has around 18,300 employees and 139 business locations in 33 countries. As of January 1, 2025, the former divisions Paint and Final Assembly Systems and Application Technology were merged to form the new Automotive division. Since then, the Dürr Group has been operating in the market with four divisions:

* **Automotive**: painting technology, final assembly, testing and filling technology
* **Industrial Automation**: automated assembly and test systems for automotive components, medical devices, and consumer goods as well as balancing technology solutions and coating systems for battery electrodes
* **Woodworking:** machinery and equipment for the woodworking industry
* **Clean Technology Systems Environmental:** air pollution control and noise abatement systems

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