



MagicControl MAX can be flexibly integrated into a free-standing column or a control cabinet.

## HIGHLIGHT OF THE MONTH

# MagicControl MAX and OptiCenter® All-in-One (OC11) – The power behind perfect coating results

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PaintExpo 2026 was an exciting platform for Gemma Switzerland, offering the ideal opportunity to showcase its latest development in powder coating technology. This year, the spotlight was on the brand-new MagicControl MAX, the next-generation control unit for powder coating systems designed to improve process efficiency and to enhance the user experience. Visitors also showed great interest in the OptiCenter® All-in-One OC11 powder management centre with DualSpeeder and OptiSpray pumps. The high level of engagement and the many insightful conversations with international visitors made PaintExpo 2026 a great success.

**A**utomation and digitalization are transforming industrial coating processes and require control systems that are not only powerful but also seamlessly integrated and easy to operate. With MagicControl MAX, Gemma Switzerland GmbH has developed a next-generation control solution that embodies these principles – combining precision, connectivity and automation expertise to deliver perfect coating results every time. MAX stands for Machine intelligence. Automation. eXperience simplified. Together, these three dimensions redefine what's possible in powder coating control.

## M – Machine Intelligence

At the core of MagicControl MAX lies a multi-core processor and modular platform architecture that centralize all coating operations within one integrated system control. Every component and the entire steps of the application process are connected through a standardized communication structure. This powerful system architecture performs all control system functions with maximum efficiency and supports real-time monitoring, process diagnostics and maintenance assistance. With its intelligent control structure, MagicControl MAX ensures high system availability and stable process conditions. Advanced features such as Dynamic Contour Detection enable data-driven process control. Using laser scanning, the system identifies part geometries and adjusts gun positionings and axis movements accordingly. This ensures accurate powder application, reduced overspray and consistent coating quality – even fine geometries of complex parts at high conveying speeds.

Machine intelligence in MagicControl MAX means more than automated control; it represents adaptive precision, ensuring reproducible coating results across variable production conditions.

## A – Automation

MagicControl MAX achieves a high degree of automation by linking all components of the coating system into a networked control system.

It facilitates vertical integration with MES and higher-level production systems and horizontal communication between all components of the coating process.

This reliable control makes powder coating processes more autonomous and leads to increased efficiency with improved and consistent coating quality, reduced operating costs and process flexibility.

The control unit enables seamless interaction between part detection and coating process, powder circulation and color change as well as ideal coating conditions in the booth,



**The quick view with customizable favorites simplifies operation and enables intuitive visualization and control of important functions.**

while complying with all safety guidelines. All operational parameters and application programs can be stored, retrieved or modified at any time. Process data and performance indicators are made accessible through the associated GemaConnect® Dashboard, which visualizes efficiency metrics, maintenance needs and system status in real time. Automation through MagicControl MAX reduces manual intervention, minimizes downtime and ensures repeatable coating results while optimising powder, energy and time usage.

## X – eXperience Simplified

Despite its technological sophistication, MagicControl MAX is designed for straightforward and easy operation. Its 18.5" HMI touchscreen interface enhances human-machine-interaction by providing clear process visualization and intuitive access to all coating parameters. Operators can quickly adjust gun settings, axis configurations and colour change sequences through user-defined favorites and direct menu access.

The control unit simplifies training and operation by presenting complex system functions in an organized, graphical format.

Routine procedures such as colour change, cleaning and maintenance are easily performed with visualized work steps, reducing operator's workload and preventing operating mistakes. Status monitoring functions, warnings and automated diagnostics further enhance system transparency. Maintenance tasks can be planned proactively, minimizing unplanned downtime and supporting continuous production efficiency.

With its modular structure, MagicControl MAX is scalable for any plant configuration – from compact lines to multi-axis robotic systems. Extensions and upgrades can be integrated seamlessly, ensuring long-term use of the investment.

MagicControl MAX combines machine intelligence, automation and simplified operation in one integrated control platform. The control provides a complete overview of the coating process, ensures precise control of every parameter and offers full digital connectivity for state-of-the-art production environments. Engineered for high reliability, MagicControl MAX delivers stability and reproducible coating results, total process transparency and sets a new benchmark in powder coating control technology.



**OptiCenter All-in-One OC11 with two OptiSpeeder powder hoppers (DualSpeeder).**



**Space-saving integration of the new OptiSpray All-in-One application pumps.**

### **OptiCenter® All-in-One (OC11)**

OptiCenter All-in-One OC11 is the cutting-edge powder management system with two OptiSpeeder powder hoppers (DualSpeeder), combined with latest OptiSpray All-in-One pump technology, which combines advanced powder loading technology with second generation SIT dense phase powder delivery technology in one compact unit.

The OC11 two powder hoppers enable coating of two independent colours in succession with ultra-fast colour change. The OptiCenter uses MultiColor Switch technology, which provides the fastest switching between OptiSpeeder hoppers and the cleanest colour change between alternating colours. A switch occurs in as little as 60 seconds, providing colour flexibility and operational efficiency for short-batch production.

Another feature of the OptiCenter All-in-One OC11 is its ability to coat simultaneously from both powder hoppers. On the one hand, it is possible to coat in parallel with only fresh powder from one container and recovery powder mix from the other, allowing independent application. Fresh powder is used for surfaces requiring premium quality, while recovery powder is applied to visually less critical areas. This optimization ensures the highest product quality and maximum powder utilization, which ultimately reduces scrap and increases cost efficiency.

In addition, the two powder hoppers can be used as a dual fresh powder source of the same powder. The user benefits from continuous automatic fresh powder supply, especially for long production batches. This prevents plant downtime due to powder shortages.

With the integration of electrostatics and powder conveying via the proven Gema OptiSpray pump technology in one compact unit, the new OptiSpray All-in-One pump is the first of its kind in the powder coating industry. This combination ensures seamless interaction between pneumatic and electrostatic functions, resulting in responsive powder delivery, instantaneous powder cloud control and the highest application efficiency. Up to 36 OptiSpray All-in-One can be integrated directly in the OC11 in a very space-saving way, eliminating the need for the otherwise commercially available gun control cabinet, which saves space and provides ergonomic plant layouts that can be installed quickly.

With OptiCenter powder management and the integrated OptiSpray All-in-One pump, users benefit from the fastest colour changes, stable coating results, intuitive operation and trouble-free maintenance.

The OC11 can be tailored to individual requirements with various equipment options, such as the US07 ultrasonic sieve insert. In addition, customers can choose between various internal fresh powder systems, including the standard cone, the cone with weighing device, the vibration table for the powder box or the external fresh powder supply with the OptiFeed FPS series. ▶