

Automated. Autonomous. Agile. Mixing And Dispensing With RAMPF MC 1000.

productronica 2025: Modular cell concept for sealing, potting, and bonding single- and multi-component reactive plastic systems

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Zimmern ob Rottweil, Germany, October 30, 2025. Intelligent automation for maximum manufacturing autonomy: RAMPF Production Systems is presenting its modular cell concept MC 1000 for sealing, potting, and bonding single- and multi-component reactive resin systems at the productronica trade show, November 18 to 21 in Munich – Hall A3 / Booth 335.



Key Takeaways

1. With the MC 1000 modular cell concept, RAMPF Production Systems is showcasing an intelligent automation solution that stands for maximum manufacturing autonomy in the sealing, potting, and bonding of single- and multi-component reactive resin systems.
2. The system's plant technology, robotics, and sensor components are fully interconnected, forming a closed-loop system that autonomously controls production processes in real time.
3. The MC 1000 is equipped with the brand new MSC-SD mixing head, combining static and dynamic mixing with automated chamber change for maximum uptime and minimal maintenance.

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The MC 1000 modular cell concept from RAMPF Production Systems is a highly advanced automation solution that guarantees maximum manufacturing autonomy in the sealing, potting, and bonding of single- and multi-component reactive resin systems.

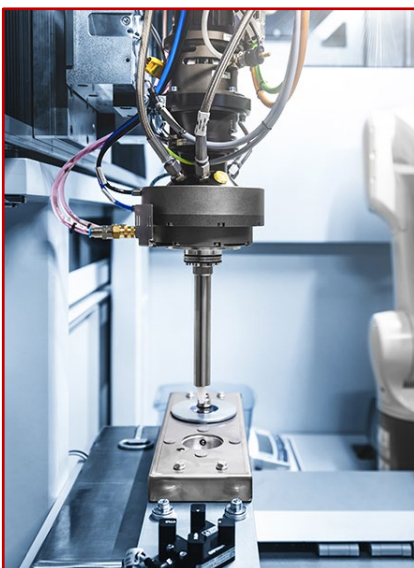
By intelligently networking plant technology, robotics, and sensor systems, it forms a closed-loop system that autonomously controls all processes in real time – ensuring maximum efficiency, precision, and flexibility in manufacturing.

Maximum Flexibility – Minimal Space

The MC 1000 integrates dispensing, joining, and testing technologies into a compact, modular unit. Thanks to its intelligent modular design, the cell can be individually equipped with high-performance dispensing systems, robotics, linear axes, conveyor belts, as well as rotary or sliding tables, and flexibly configured for a wide range of applications.

Joining, assembly, and testing processes are seamlessly integrated – both as a stand-alone solution and as part of complex production lines. Proven control systems from Beckhoff and Siemens are used, while operation is handled intuitively via the proprietary RAMPF HMI.

MSC-SD Mixing Head – Autonomous Chamber Change for Maximum Uptime and Minimal Maintenance



Equipped with the newly developed MSC-SD mixing head, the MC 1000 from RAMPF Production Systems combines static and dynamic mixing in a single system. A standout feature is the automated mixing chamber change, which offers:

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- Maximum process reliability and stability thanks to optimized mixer geometry
- Consistent and reproducible mixing results – ideal for series production
- Reduced downtime for increased system availability
- Substantially minimized cleaning requirements

Next-Generation Automation – Live at productronica

At productronica 2025, RAMPF Production Systems is demonstrating the impressive versatility of its MC 1000 mixing and dispensing cell. Featuring a Y-Z axis system, the new MSC-SD mixing head, and a plasma jet from Plasmatreat, the cell showcases maximum precision and efficiency.

A dual sliding table is autonomously loaded and unloaded by the KMR iisy mobile robot from KUKA. This robotic handling enables flexible, automated processing of workpieces from various areas – a key contribution to maximum production flexibility. Equipped with a SensoPart camera – the “eye” of the KMR – the system ensures precise position calibration and reliable detection of components and fixtures.

The setup is further enhanced by integrated cannula inspection and a scale for process monitoring.

Visit RAMPF Production Systems and RAMPF Advanced Polymers at productronica, November 18 to 21 in Munich – Hall A3 / Booth 335!

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RAMPF Production Systems GmbH & Co. KG is one of the world's leading suppliers of innovative systems for processing single-, dual-, and multi-component reactive resin systems.

In addition to its core competence of mixing and dispensing technology, the company based in Zimmern ob Rottweil, Germany, provides product-specific automation concepts with integrated parts transport and heat treatment, assembly and joining technology, as well as logistic and quality assurance solutions.

The customer-specific solutions include integrating both surface activation processes as well as testing and measuring technology to safeguard production processes.

Prototypes and small series for customers are produced in the application-engineering center.

This wide-ranging expertise enables RAMPF Production Systems to provide its customers with complete solutions for their production facilities.

RAMPF Production Systems is a company of the international RAMPF Group based in Grafenberg, Germany.

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