Press release

Cost-effective multi-component injection moulding: the ENGEL e-mac combi

Two-component moulding with a compact footprint and integrated functionality

Schwertberg/Austria – November 2026

Compact on the outside, capable on the inside: ENGEL's all-electric e-mac combines a compact clamping unit with a generous tie-bar spacing for moulds and automation. It is also available for multi-component injection moulding. The e-mac combi comes with a second injection unit as standard and is designed for cost-effective production. Integrating functions directly into the moulded part can reduce the number of individual components and the amount of assembly work, helping to lower complex unit costs.

The e-mac has proved its ability to handle complex applications efficiently in a compact machine, with all-electric drive technology. This makes it an attractive platform for multi-component moulding, too. With the e-mac combi, ENGEL offers a choice of different injection-unit configurations to suit the application. The first e-mac combi was delivered to a customer in April 2026. Numerous machines are already in production, including in the flip-top closure sector. The machine is also suitable for applications across a wide range of industries – from toothbrush handles for personal care and housings for medical injection pens to technical components for the automotive industry. It can process a wide range of thermoplastics, as well as hard-soft combinations.

The generous tie-bar spacing, integrated hydraulics and increased mould height—all included as standard—provide greater freedom in mould design and can often eliminate the need for costly optional extras. Servo-electric rotary tables with diameters of up to 1,100 mm enable short rotation times and precise positioning.

Cleverly integrated, clearly positioned

Despite the additional control cabinet, the e-mac combi remains as compact as a conventional e-mac with just one injection unit. Compared with the e-motion combi, it requires around 15% less floor space and has around 35% lower investment costs, based on comparable equipment. For high-performance applications requiring particularly short cycle times, the e-motion combi remains the right solution.

"With the e-mac combi, we are making the successful e-mac available for multi-component applications. The enclosed toggle lubrication system keeps the clamping unit clean and reduces maintenance requirements. More powerful drives enable short cycle times and high productivity. This gives our customers greater flexibility, a compact footprint and efficient production."

Christoph Schützeneder, Head of Product Management
Electric Machines, ENGEL Austria

More functionality in the part, fewer process steps

The e-mac combi is part of ENGEL combimelt, the company's multi-component technology portfolio. Two or more plastics are moulded into a single part in one process, for example to combine different colours or functions. ENGEL tailors the injection units, machine, mould and process to the part. The benefits at a glance:

- **Fewer parts, lower cost per part:** Seals, grip areas and other features can be moulded directly into the part. Separate components, joining operations and inspection steps may no longer be needed.
- **Greater product value:** Colours, materials and surface feel and functionality can be combined in a single part – for example, through contrasting colours or soft zones for a secure grip.
- **A shorter process chain:** Moulding and subsequent operations are combined in one production cell. This reduces hand-offs and work-in-progress storage, and can shorten lead times.
- **The right technology, without unnecessary investment:** Whether the application calls for a core pull, rotary table, index plate, transfer plate or transfer system, the solution is matched to the required output, cycle time and flexibility.
- **A predictable ramp-up:** The machine, automation and process work together. Fewer interfaces simplify project planning.

Combining functions in multi-component parts

The versatility of combimelt is demonstrated by three types of parts. **Multi-component parts** combine different functions – for example, a rigid base body with an integrated seal. **Surface-finished parts** are produced using ENGEL clearmelt. The finish is applied directly in the production cell and can replace a separate painting step. In **sandwich parts**, the core and outer skin perform different functions and can be made from different materials. These specialist technologies are already proven on ENGEL machines.

Please send us a proof link to susanne.schroeder@engel.at upon publication, or alternatively a hard copy to: ENGEL Austria GmbH, Susanne Schröder, Ludwig-Engel-Straße 1, A-4311 Schwertberg, Austria.

Images: ENGEL

01



Colour and function in one part: the e-mac combi – shown here with a vertical injection unit – produces two-component parts in a single process. © ENGEL/AI

Alt text: ENGEL e-mac 280 combi with vertical and horizontal injection units; below are examples of multi-component parts: a housing, toothbrushes, a tool handle and a flip-top closure.

02



Christoph Schützeneder, Head of Product Management, Electric Machines, ENGEL Austria: “With the e-mac combi, we are extending the proven e-mac platform to multi-component applications.”

Alt text: Portrait of Christoph Schützeneder, Head of Product Management, Electric Machines, ENGEL Austria: smiling man with short brown hair and a beard, wearing a dark jacket and white shirt.

ENGEL AUSTRIA GmbH

ENGEL is one of the global leaders in the manufacture of injection moulding machines. Today, the ENGEL Group offers a full range of technology modules for plastics processing as a single source supplier: injection moulding machines for thermoplastics and elastomers together with automation, with individual components also being competitive and successful in the market. With twelve production plants in Europe, North America, Mexico and Asia (China, Korea and India), and subsidiaries and representatives in more than 85 countries, ENGEL offers its customers the excellent

global support they need to compete and succeed with new technologies and leading-edge production systems.

Contact for journalists:
Susanne Schröder, PR-Manager, ENGEL AUSTRIA GmbH,
Ludwig-Engel-Straße 1, A-4311 Schwertberg/Austria
Tel.: +49 (0)160 96 29 0536, email: susanne.schroeder@engel.at

Legal notice:
The common names, trade names, product names and similar cited in this press release are protected by copyright. They may also include trademarks and be protected as such without being specifically highlighted.
www.engelglobal.com