

40 years of experience in silicone injection moulding

## **ENGEL Silicone Days 2026 show proven technologies and broad process expertise for users**

*Schwertberg/Österreich, May 2026*

**With the Silicone Days on 28 and 29 April 2026, the ENGEL Group presented current solutions for greater quality, process reliability and cost efficiency in silicone injection moulding in Schwertberg. Around 200 visitors used the event to learn about future requirements, technologies and system solutions in the processing of liquid and solid silicone. The high level of international participation shows the importance of this topic for processors in different markets.**

ENGEL has more than 40 years of experience in silicone injection moulding. Users benefit from this in the form of proven technologies, broad process expertise and close know-how transfer, as enabled by events such as the Silicone Days. The Expert Corners also contributed to this, where ENGEL, together with partner companies, promoted exchange on current developments in the fields of simulation, mould making and dosing technology.

“‘Be the first’ at ENGEL is not aimed at ourselves, but at our customers,” said Stefan Engleder, CEO of the ENGEL Group, in his keynote. “We want to support processors in opening up new applications at an early stage, transferring market trends into stable and scalable production and thereby specifically improving efficiency, sustainability and costs. Especially in an increasingly competitive environment, this creates concrete advantages such as lower scrap rates, less downtime and greater efficiency in production.”

The first day of the event focused on specific practical applications. In ENGEL’s technical centre, visitors were able to experience three production solutions live in small groups and at the same time learn about current market developments. The applications shown made it comprehensible what contribution the interaction of machine, mould, automation and process technology makes to stable processes, high part quality and cost-efficient production.



*Image 1: Around 200 visitors learned about current technologies and system solutions for greater quality, process reliability and cost efficiency in silicone injection moulding at the ENGEL Silicone Days 2026 in Schwertberg.*

### **Producing precise sealing solutions for fuel cells cost-efficiently in series**

One exhibit showed a highly automated production cell for manufacturing precision seals made of liquid silicone rubber for gas diffusion layers of fuel cells. The application made clear that sensitive functional elements made of film material can be overmoulded with LSR precisely, reliably and cost-efficiently. Especially for series production in the field of hydrogen mobility, this is a decisive process, as the seal must be produced reliably without impairing the diffusion function of the film. The requirements for precision, process stability and the interaction of mould, machine and automation are correspondingly high.

The core element of the compact complete solution was a vertical ENGEL insert 150 injection moulding machine with 1,500 kN clamping force and integrated rotary table. This production cell enables injection and demoulding to take place simultaneously, allowing output to be almost doubled with a cycle time of 50 seconds. A 2-cavity mould from ACH Solution was used for forming. Equipped with the ACH SERVOSHOT 2G and electric nozzle control, the mould ensures high process reliability with consistently high part quality, even with multiple injection points.



*Image 2: In the production of GDL films for fuel cells, the vertical ENGEL insert 150 shows how sensitive film components can be overmoulded with LSR precisely, reliably and cost-efficiently with high output.*

An ENGEL easix articulated robot handled the complete handling of the parts. This allows machine and automation movements to be precisely coordinated. An integrated camera inspection additionally checked the uniform wall thickness distribution of the LSR seal and ensured the required part quality. The vertical insert machine series from ENGEL also offers a particularly compact design. As the control cabinet is integrated directly into the machine, the footprint of the entire production cell is significantly reduced, a key advantage for automated production where space is limited. These vertical production solutions with integrated rotary table increase output on a compact footprint and thereby create advantages in productivity and space efficiency.

### **Setting up LSR applications more stably and increasing system availability**

As the second exhibit, ENGEL showed a tie-bar-less e-victory 160 with 1,600 kN clamping force for the production of the central silicone part of technical gas masks. Parts with a part weight of 41 grams were produced with a cycle time of under 80 seconds. As tie-bar-less technology has comparatively large platens, it is possible to choose a smaller machine size for the same application and thereby reduce investment costs. In this exhibit, the finished parts were removed by a fully integrated ENGEL viper 12 linear robot.



*image 3: The tie-bar-less ENGEL e-victory 160 offers greater flexibility in mould design with its large free mould space and large platens. This can help to select a smaller machine size and reduce investment costs.*

This production cell was already equipped with the new LSR technology package. The material versions of the plasticising units were specifically further adapted to the requirements of LSR. For the barrel, a cost-optimised version is used without compromising the quality requirements. In addition, the package was further optimised on the software side.

At ENGEL, the feed pressure in LSR applications is therefore limited to 50 bar as standard and also actively monitored. This allows unsuitable parameter settings to be avoided at an early stage, keeps the process window stable and protects components. The new ejector programme also helps to simplify process set-up. By reducing the number of ejector steps, complexity during setting is significantly reduced. At the same time, the risk of incorrect configurations decreases, while independently adjustable speed and force per step enable fast, precise fine adjustment, noticeably simplifying operation in day-to-day production and significantly increasing the OEE of the systems through minimised downtime.

### **Processing solid silicone reliably and improving material guidance**

In addition to the two LSR applications, ENGEL also presented the cost-efficient, fully automated processing of solid silicone. A tie-bar-less e-victory 120 with 1,200 kN clamping force and the new next-generation rotofeeder from ENGEL were used.





*Image 4: The new ENGEL next-generation rotofeeder improves material guidance in the processing of solid silicone, reduces critical dead spots and thereby increases process reliability in series production.*

This was further developed so that the material is fed directly into the barrel. This reduces dead spots in which material could accumulate. This improves material guidance and increases process reliability.

Sealing pads for electrical connectors were produced on the system in an 8-cavity mould from RICO. With a shot weight of 83 grams, the cycle time was under 100 seconds. A special solid silicone from DOW was processed, developed for applications in electromobility and electrical engineering and meeting fire protection class V0.



*Image 5: The strong visitor interest in the tie-bar-less ENGEL e-victory 120 shows the high relevance of cost-efficient and reliable solutions for processing solid silicone with integrated automation.*

Here too, the parts were removed by a viper 12 linear robot fully integrated into the CC300 machine control. A transfer head manufactured by ENGEL specifically for the application placed the parts on an automatic conveyor belt. The system showed that high part quality, reliable material guidance and integrated automation can also be combined cost-efficiently in the processing of solid silicone.

### **Identifying market developments earlier and directly involving user knowledge**

The technical programme was complemented by a Future Lab in a World Café format. In a relaxed workshop atmosphere, participants discussed central questions on the future development of silicone injection moulding within a short time. The focus was on guiding questions such as: What would a start-up do differently if it were to enter the silicone elastomers market tomorrow? Which megatrend opens up the greatest commercial opportunity and what consequences arise from this? And what could fundamentally change existing business models in injection moulding?

The discussions focused on three topic areas: Sustainability Meets Processing Reality, Next-Gen Applications & Advanced Processing Technologies and Smart Manufacturing & Automation. The dialogue with users thus serves as an important impulse for future development initiatives at ENGEL.

### **Deepening practical knowledge and better understanding the interaction of process steps**



*Image 6: Practice-oriented specialist presentations in the ENGEL Audimax conveyed application-oriented process knowledge and gave participants impulses for robust processes, short time-to-market and high part quality.*

The second day of the event focused on knowledge transfer. Practice-oriented specialist presentations by renowned guest speakers provided in-depth insights into key development areas of silicone injection moulding. The focus was on material knowledge, simulation, mould making,

temperature control and the coordinated interaction of these areas. Particularly in demanding applications, this interaction determines robust processes, short time-to-market and consistently high part quality. The event concluded with a guided tour of the ENGEL machine plant in Schwertberg, combined with a look behind the scenes at one of the industry's most modern production sites.

Images: ENGEL

#### **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 eleven 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:**

Tobias Neumann, Press Officer, ENGEL AUSTRIA GmbH  
Ludwig-Engel-Strasse 1, A-4311 Schwertberg, Austria  
Tel.: +43 (0)50 6207 3807 email: [tobias.neumann@engel.at](mailto:tobias.neumann@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](http://www.engelglobal.com)