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Theme of the Issue: BLOW MOLDING & CAPS



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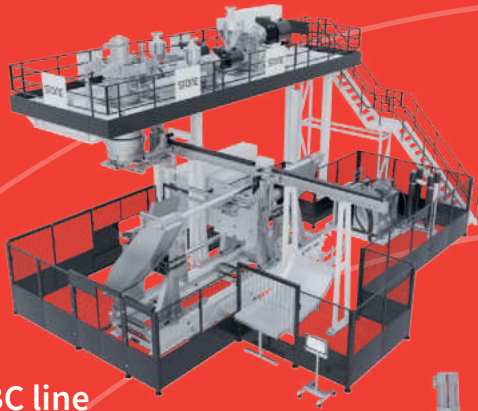
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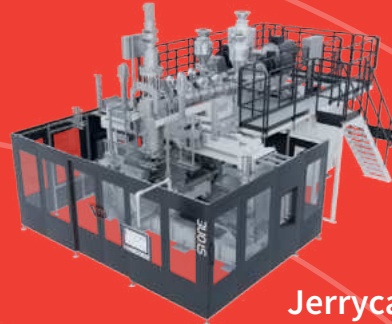


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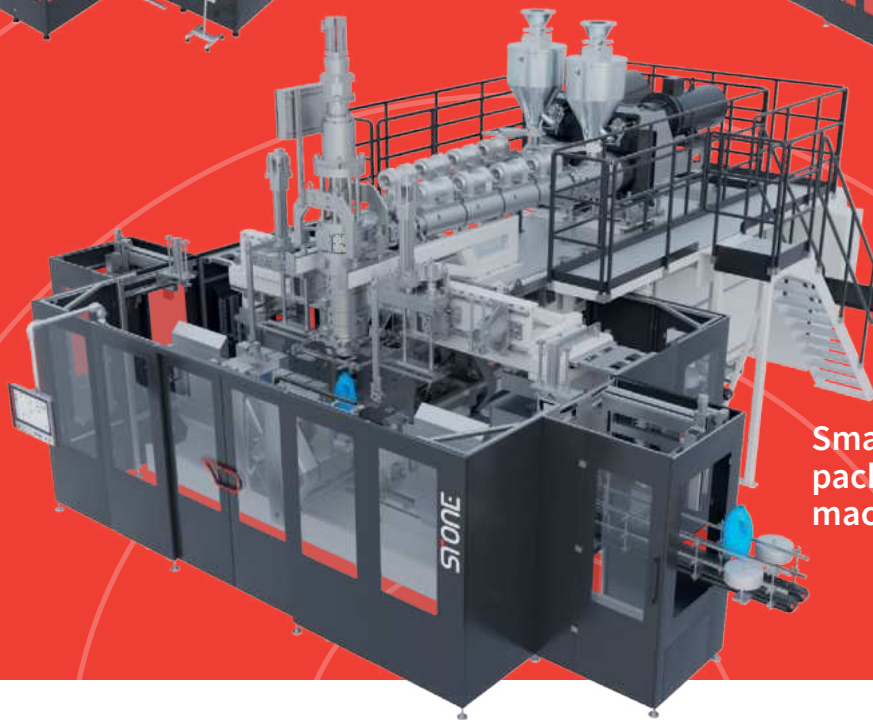
SOLID SHAPE OF INNOVATION



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VM Verlag GmbH: Im Mediapark 5, 50670
Cologne, Germany

EDITORS

Konstantin Faticzev (Editor-in-Chief)
editor@smart-molding.com

ADMINISTRATION

Alla Kravets
Tel. +49 2233 949 8793
a.kravets@vm-verlag.com

ADVERTISING and SALES

Martina Lerner
Tel. +49 6226 971515
lerner-media@t-online.de

Tanja Bolta
Tel.+49 1520 5626122
t.bolta@vm-verlag.com

Maria Melis
m.melis@vm-verlag.com

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Front page picture: Graham Engineering



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As China embarks on the first year of its “15th Five-Year Plan,” a dynamic blueprint for innovation and high-quality development in the plastics and rubber industries is set to unfold at CHINAPLAS 2026. “The Recommendations of the 15th Five-Year Plan” emphasizes cultivating emerging and future industries, expanding high-level openness, and advancing intelligent, green, and integrated development. These priorities provide fertile ground for the plastics and rubber industries and anchor the exhibition’s strategic focus.



38

With the new fully electric SmartLine, Bekum expands its machine portfolio with a series consistently engineered for efficiency and cost-effectiveness. Developed entirely from scratch, the new machine range enables a cost-efficient entry into extrusion blow moulding technology — while delivering convincing performance in energy consumption and life-cycle costs.



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Throughout 2025, various companies, focusing on designing and manufacturing of machines, molds and special tooling were tirelessly launching their new developments for benefit of the injection molding sector. Many of these state-of-the-art novelties were demonstrated at K 2025 – the world's leading plastics and rubber trade fair, that was held in Düsseldorf, Germany, October 8-15 2025.



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Since the previous edition of the K Show in 2022, companies, focussing on designing and manufacturing of extrusion and injection blow molding machinery and special tooling had launched a lot of new developments. Many of these state-of-the-art novelties were demonstrated at the K 2025 Show that was held in Düsseldorf, Germany, October 8 - 15 2025.



44

With a central material supply system from WITTMANN, elasto has reorganized material handling in injection molding production. The investment is part of a comprehensive modernization package aimed at achieving long-term competitive unit costs at the German site.



48

When purchasing a 3D printer for high performance polymers, such as PEEK and ULTEM, there's a very important distinction between "can print" and "prints reliably". With a simple \$5 80W heater cartridge and \$10 RTD PT1000, any manufacturer can claim their 3D printer "can print PEEK and ULTEM". The fact is, extruding these materials isn't hard — mitigating warping/cracking, slowing crystallization, and achieving strong interlayer adhesion after extrusion is where these materials get their reputation as "difficult to print".

CEO of ZAHORANSKY AG retires: Ulrich Zahoransky leaves the company after four decades

After almost 40 years in a senior position, Ulrich Zagoransky (71 years old), as planned, left the post of Chairman of the Board of ZAHORANSKY AG on December 31, 2025, handing over management entirely to Ric Nachtmann (Chief Financial Officer) and Dr.-Ing. Heinrich Sielemann (Chief Technical Officer). With the appointment of these two executives approximately a year ago, the ZAHORANSKY Group took a decisive step toward ensuring a stable and future-oriented development. For the first time in the company's history, renowned expertise in technology and management is being combined without the direct involvement of a family member on the Management Board – a significant milestone in the company's 123-year history.

Ulrich Zahoransky looks back on an impressive career: After studying industrial engineering at the Karlsruhe University of Applied Sciences and holding positions in accounting and IT at other companies, he followed his father Heinz Zahoransky's call to join the family business in 1988. He quickly took on more responsibility and, starting in 1991 as a Management Director in ZAHORANSKY KG and from 2003 as a member of the executive board of ZAHORANSKY AG, decisively shaped the strategic direction of the ZAHORANSKY Group. His era was marked by the construction of new production facilities in Germany, India, and Spain, an increase in the number of employees from 370 in 1995 to over 920 in 2020, and a tripling of revenue to up to 140 million euros. In addition, Zahoransky strengthened the company's presence in key markets through international sales and service subsidiaries in the USA, Hong Kong, China, Japan, and Brazil – which improved customer service and boosted sales. Zahoransky also consistently pushed ahead with the entry into new business areas such as automation and medical technology, as well as the development of pioneering digital solutions. Also worth highlighting are the long-standing partnership with one of the largest leading international



Ulrich Zahoransky next to the bust of his grandfather Anton Zahoransky, born in Elbekostelec (now Czechia), who founded ZAHORANSKY in Todtnau in 1902 and ran it until 1951. (Picture: ZAHORANSKY)

oral care manufacturers, which has awarded ZAHORANSKY several times, and successful large-scale projects such as the US initiative "Operation Warp Speed," for which the ZAHORANSKY Group supplied more than 20 systems for the production of vials (vaccine containers) for coronavirus vaccines.

Core values of a family business

At the same time, Ulrich Zahoransky has always stood for continuity and the core values of the family business: consistent apprentice training, for which the company received the "Best Place to Learn" award, employee share ownership in the company's success, and the cultivation of corporate culture have had a lasting impact on his work. Despite the economic challenges of recent years, the connection to the employees and the location has remained strong. "We are and want to remain a family business with strong values, even though now, after 123 years, there is no longer a family member on the board for the first

time," says Ulrich Zahoransky. "We set the course for this with the conversion to a stock corporation in 2003. With the two board members Dr.-Ing. Heinrich Sielemann and Ric Nachtmann, we are well positioned for the future and can offer our employees secure jobs."

Setting the course for the future

With the end of 2024 started long-term handover to the new management team, the company is ideally positioned for sustainable growth and innovation. The aim is to intelligently combine technical, development, and service expertise and to strengthen the company's international presence. The Management Board and Supervisory Board are looking forward to the tasks and challenges ahead with confidence. ZAHORANSKY AG would like to thank him for his decades of commitment and wishes him happiness and good health in this new chapter of his life.

ZAHORANSKY
www.zahoransky.com

Management change at HASCO: Markus Büngers becomes new CEO

With effect from 1 January 2026, Markus Büngers has taken over the position of CEO of HASCO Hasenclever GmbH + Co. KG. Following the departure of the long-standing CEO, Christoph Ehrlich, in the summer of 2025, Thomas Karazmann initially assumed responsibility for managing the company and, during this transition phase, ensured HASCO's strategic continuity and operational stability.

In his previous role as Executive Vice President Finance & Administration, Markus Büngers was continuously involved in the strategic and operational aspects of all departments and thus played a decisive role in shaping the company's ongoing global development. He stands for continuity, technical expertise and strategic reliability.

Thomas Karazmann is confident that his successor will continue to drive HASCO's strategic development. "I am delighted that we have been able to appoint Markus Büngers as the person we absolutely wanted to take on the role of CEO. He is an experienced

manager who knows HASCO very well and, thanks to his previous roles at renowned industrial companies, has extensive international management experience. With him, HASCO is in the best possible hands."

Markus Büngers is equally optimistic about his new role: "I would like to thank everyone most sincerely for the trust they have placed in me to actively shape HASCO's future in this important role. The challenges are great, but so is our confidence. HASCO has enormous strengths, excellent employees with a wide range of skills, and a clear, shared vision. We will consistently build on these strengths through dedicated hard work for the benefit of our customers."

With this management change at the beginning of the year, HASCO has laid the foundations for stable, future-oriented development and, in Markus Büngers, has chosen a manager who knows the company extremely well and embodies its values.

HASCO

www.hasco.com



*Markus Büniger, CEO of HASCO
Hasenclever GmbH + Co. KG
(picture: HASCO)*

Netstal appoints Kevin Green as President, Americas

Kevin Green possesses over 25 years of experience as a leader in blue chip companies and small capitalization companies, in the global packaging, materials, and capital equipment industries. Throughout his career, he has acquired extensive expertise in finance, commerce, and operational excellence, complemented by in-depth knowledge of artificial intelligence. In his new role as President, Americas Mr. Green will be responsible for the growth of Netstal's subsidiaries in the Americas. Mr. Green will report directly to the Renzo Davatz, CEO of NETSTAL Maschinen AG, headquartered in Näfels, Switzerland.

Renzo Davatz: "We are delighted to welcome Kevin Green, a highly experienced industry expert, as the new President, Americas. With his strong customer focus and leadership skills, he will play a key role in driving Netstal's growth across the Americas. Combined with our leading technology



*Kevin Green, President of Netstal,
Americas (Pictures: Netstal)*

and consistent focus on maximum production efficiency, Netstal offers quality-conscious manufacturers the best solutions, which we will continue to expand together with our Americas teams."

Kevin Green: "I am delighted to join Netstal, a leader in injection molding equipment and services for over 80 years. As a former customer of Netstal, I know firsthand the many advantages of Netstal's equipment and world-class service organization and I am eager to provide these advantages to our rapidly growing markets in the Americas. We are actively investing in expanded service offerings and innovative equipment capabilities in the Americas. I am looking forward to working with the entire Netstal team, our partners, and of course our valued customers as we grow our business in the Americas."

Netstal

www.netstal.com

DuPont Announces Appointment of D.G. Macpherson to Board of Directors

“We are very pleased to welcome D.G. to the DuPont board,” said Lori Koch, DuPont Chief Executive Officer. “D.G. brings deep expertise in operational excellence, supply chain optimization, and business transformation, which will be invaluable as we execute our growth strategy and deliver long-term value to shareholders, customers, and employees. His passion for innovation and commitment to continuous improvement make him a natural fit for our Board. We are excited to leverage his leadership experience and insights as we shape the future of DuPont.”

Mr. Macpherson is the Chairman and Chief Executive Officer of W.W. Grainger, Inc., a leading broad-line distributor of MRO products and services with operations primarily in North America and Japan. In his tenth year as Grainger’s CEO, he oversees the company’s global strategic and operational vision and leads with a customer-first mindset and steadfast commitment to company culture.

Previously, he served as Grainger’s Chief Operating Officer, as well as Senior Vice President and Group President,

Global Supply Chain and International. In these roles, he led the development of corporate strategy and continuous improvement, the global supply chain organization, the company’s single-channel online business model, and international operations in Asia and Europe.

Prior to joining Grainger in 2008, Mr. Macpherson was a Partner and Managing Director at Boston Consulting Group (BCG), a global management consulting firm. At BCG, Mr. Macpherson developed extensive experience in production systems and continuous improvement methodologies, serving as a consultant to Grainger on several strategic and operational efforts, including availability improvement, pricing strategy, product line expansion, and sales force effectiveness. He began his career as a test engineer with the U.S. Air Force.

Mr. Macpherson holds a bachelor’s degree from Stanford University and an MBA from Northwestern’s Kellogg School of Management. Mr. Macpherson served on the International Paper Company Board of Directors from 2021 to 2024 and



D.G. Macpherson joins DuPont board (picture: DuPont)

currently sits on the Griffin Museum of Science and Industry Board of Trustees, as well as serving as the Vice Chair of the Civic Committee of the Commercial Club of Chicago.

Picture: DuPont
www.dupont.com

Husky Technologies Announces Leadership Transition in Service Organization

Husky Technologies™ (“Husky”), a GPGI company (NYSE: GPGI) and a global leader in sustainable injection molding solutions, announced that Tracy Cordes has been appointed President, Service, replacing Tony Black, who retired on March 31, 2026 after more than five years of dedicated service.

Earlier, as part of a smooth leadership transition, Tracy Cordes will assume the position of President of Service on February 16, 2026 and join Husky’s executive management team. Ms. Cordes brings extensive global leadership experience with a strong track record in service, operations, business transformation, and profitability across large, complex organizations.

Most recently, Ms. Cordes served as Executive Director of Global Business



Transformation, Commercial HVAC at Carrier Global Corporation, where she established and led a Global Transformation Management Office

Tracy Cordes joined Husky in February 2026 as President, Service. (picture: Husky)

to drive strategic initiatives across a global structure. She also previously served as Executive Director of Global Service Operations, Commercial HVAC, where she led the consolidation and standardization of global service operations. Prior to Carrier, Ms. Cordes held senior leadership roles at Chubb Fire & Security, including Managing Director of Chubb UK, with full P&L responsibility.

“Tracy is a proven leader with deep expertise in service operations, transformation, and customer-focused execution,” said Husky CEO Bradley Selleck. “Her expertise and collaborative leadership approach make her exceptionally well suited to lead our Service organization as we continue to evolve, innovate, and create long-term value for our customers and stakeholders.”

Mr. Black joined Husky in January 2020 and has played a pivotal role in

strengthening the company’s global service organization. During his tenure, he led significant improvements in customer satisfaction, employee engagement, service performance, and operational effectiveness, while developing a strong proactive culture of continuous improvement and service excellence, with five consecutive years of growth. His leadership has helped further position Service as a key value driver for Husky’s customers with a long-term performance strategy.

“Tony has made a lasting impact on Husky through his leadership, commitment, and focus on delivering value to our customers,” continued Selleck. “We thank Tony for his significant contributions and commitment to serving our customers. We wish him continued success in his retirement.”

Mr. Black and Ms. Cordes will work closely together through the end of March

2026 to ensure an orderly transition. During this period, Husky’s strategic priorities, day-to-day operations, and focus on customer service will remain unchanged.

This leadership transition supports Husky’s long-term focus on sustainable growth, operational strength, and customer service excellence. The company continues to expand service innovation, aftermarket opportunities, and customer partnerships with a strong foundation in core markets. The company believes that a new leadership focus will build further value through service innovation and customer partnership, solidifying Husky’s differentiated leadership position while focusing on advancing innovation to drive execution and growth.

Husky
www.husky.co

Haitian International participates in PLASTINDIA 2026

PLASTINDIA 2026, one of the Asia’s largest international plastics exhibitions, concluded successfully on February 10th at Bharat Mandapam in New Delhi after six days of groundbreaking showcases and industry networking.

Haitian India drew massive attention at Hall 10, Booth A-12, where we demonstrated four powerful production solutions:

- JU4500V/2400SE Two Platen Servo-Hydraulic Machine Automobile Filter Case Manufacturing. This machine molds 275g filled PP filter cases with 1+1 cavities.

- MA3800/980H PRO Toggle Servo-Hydraulic Machine Thin Wall for high-speed thin-wall IML production. The machine produces 500ml containers (15×6g PP Exxon Mobil PP7755KNE1) across 6 cavities with 1046 CC/S injection rate.

- MA3000/1800GII Toggle Servo-Hydraulic Machine for precision robotic insert molding. The machine produces 375g ABS electric power socket boxes with 18 brass-nut M5 thread inserts using 1+1 cavities.

- Advanced NIIGATA MD100S8500 All-Electric for Automobile & PC Thick Lens Manufacturing. The applicant



achieves for 42.5g PC lenses (Makrolon R – LED2245) in 2-cavity molds.

Hundreds of manufacturers witnessed live production runs that addressed India’s real manufacturing challenges.

The four sets of applications are not only a concentrated display of technical strength, but also the Haitian India’s deep cultivation of the local area and service to the world.

With expanded local manufacturing, rapid technical support, and solutions

The Indian company Haitian presented four powerful production solutions at the exhibition. (picture: Haitian India)

tailored to your production needs, our commitment is clear: deeply rooted in India, manufacturing for India, building India’s future together.

Haitian
www.haitian.com

Oerlikon HRSflow opens a new highly efficient production plant ...

Designed to expand manufacturing capacity and optimize production processes, the new plant enhances operational flexibility and enables Oerlikon HRSflow to deliver faster, more efficient and higher-quality solutions across its entire product range.

Primarily dedicated to advanced machining and lathing operations, the facility's opening also led to a reorganization of the company's other manufacturing buildings in Italy. Production activities were consolidated by process and product - for example, with a dedicated area now focused exclusively on multi-cavity solutions - streamlining workflows and improving overall efficiency.

Covering a total area of 2,000 square meters, the new building has been designed according to Lean Manufacturing principles to boost productivity, minimize waste and better meet customer demand. Significant investments have also been made in automation, ensuring maximum use of production capacity while maintaining the highest standards of quality and flexibility required by the injection molding industry. As a result, Oerlikon HRSflow can now more rapidly meet the diverse configuration requirements of its customers.

In line with Oerlikon HRSflow's commitment to sustainability, the new facility is equipped with a photovoltaic system. Combined with the solar panels already installed on the roofs of other production buildings and in the parking area, renewable energy now accounts for approximately 20% of the company's total electricity consumption. Additionally, next-generation electric vehicle charging stations have been installed to support sustainable mobility for employees and visitors.

... and opens a new service plant for prompt customer support

Covering an area of 1,200 square meters, the new service facility is equipped with advanced machinery and a highly specialized team. It enhances Oerlikon HRSflow's operational flexibility, enabling the company to deliver fast, efficient and high-quality assistance for all hot runner systems.



The service team Oerlikon HRSflow in Italy consists of more than 30 professionals. (Pictures: Oerlikon HRSflow)

The plant includes a fully equipped workshop for restoration and maintenance, two CNC lathes, advanced quality-control instruments and a dedicated packaging workstation. A vertical automated warehouse further optimizes logistics, streamlining operations and improving turnaround times.

The service team in Italy consists of more than 30 professionals and includes CNC lathe operators, packaging and warehouse specialists, planners, Sales Support Engineers, workshop technicians and injection moulding process experts. Guided by a continuous improvement approach, the service team works closely with the Application engineering and R&D department, collecting and analysing data to prevent recurring issues and optimize hot runner system performance.

“In a challenging market context, where service resources are often streamlined to optimize costs, our company has taken a different approach by reinforcing its capability to deliver exceptional customer support through the establishment of a dedicated unit - said Marco Polesello, Customer Service Director at Oerlikon HRSflow. “We believe that our distinctive strength lies in our unwavering commitment to customer service as the most effective means to meet our clients' needs.”

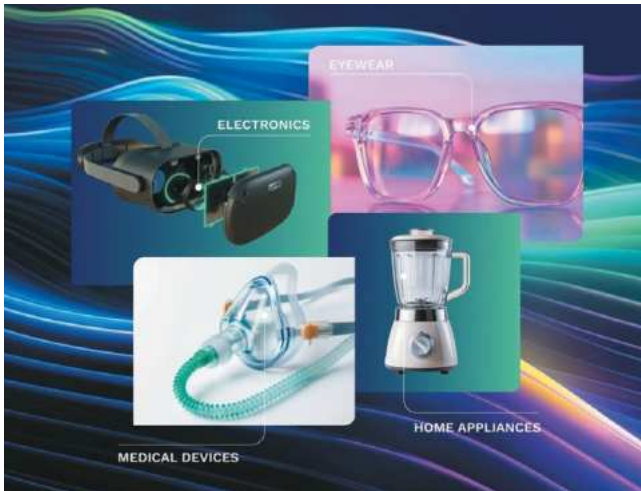
This new facility marks another important step in Oerlikon HRSflow's ongoing commitment to delivering innovation, reliability and customer-focused excellence across the global injection molding industry.

Oerlikon HRSflow
www.hrsflow.com

Arkema starts up its new transparent polyamide unit in Singapore

Arkema is pleased to announce that its new Rilsan® Clear transparent polyamide production unit, located on its Singapore platform, is now fully operational. This milestone strengthens Arkema's leadership in high-performance polymers, giving the Group the largest transparent polyamides production capacity in Asia.

Picture: ARKEMA



This successful start-up represents a major step forward for Arkema, as the new unit triples the Group's global production capacity of Rilsan® Clear transparent polyamide. This investment of around US\$20 million, announced in July 2025, is part of the major growth projects in which Arkema has recently invested to support its strategic roadmap on Specialty Materials.

Designed for operational excellence and reliability, this new unit will enable Arkema to meet the growing demand for sustainable high-performance transparent materials across key markets such as eyewear, AR/VR and smart consumer electronics, industrial filtration, healthcare devices and home appliances.

«We are very proud of this strategic expansion dedicated to transparent polyamides, further strengthening our position as the leading global producer of specialty polyamides», said Laurent Tellier, Senior Vice-President High Performance Polymers and Fluorogases. «It marks the next step in developing our key platform in Singapore, contributing to our strategy to develop local and competitive supply close to our customers in the region.»

With this additional capacity, Arkema reaffirms its commitment to supporting customers in Asia and worldwide through resilient and competitive local supply chains, while contributing to the transition toward more sustainable materials.

ARKEMA

www.arkema.com

New CAD page: HASCO simplifies the work of designers

HASCO has simplified the day-to-day work of designers by bringing together its CAD services with immediate effect on a completely revised CAD page. The new section of the website offers centralised, user-friendly access to CAD data, software overviews and practical configuration aids – ensuring efficient and consistent design processes.

Centralised download of all CAD data

All CAD data from the extensive HASCO portfolio are available for download. With just a few clicks, the required STEP files can be downloaded and directly integrated into the respective design environment. HASCO has therefore reduced the time and effort required for data procurement and enables a smooth, trouble-free CAD process.

Overview of all supported CAD systems

A clear overview shows at a glance which CAD systems are supported by HASCO. This allows users to immediately see how HASCO components fit optimally into their existing processes – regardless of the system used.

Technical guidance and configurable products

Detailed instructions make product configuration easier. They guide users step by step through the configuration process and facilitate the individual adjustment of components. In addition, HASCO introduces its configurable components, in which installation spaces and CAD models can be individually

adapted. This increases flexibility and opens up new design possibilities.

With the new CAD page, HASCO has created a central platform for all CAD-related topics. It simplifies access to product data, provides support during configuration, and sustainably increases efficiency in day-to-day design work.

HASCO

www.hasco.com



CAD data, innovative tools and downloads for modern tool and mould making



Picture: HASCO

AON3D Cuts Print Times by 54% with Physics-Based Slicing

For years, throughput has been a sticking point with manufacturers looking to adopt additive manufacturing. Thankfully, a new software feature from AON3D is about to change that — utilizing physics-based G-code post-processing, the company was able to cut print times by as much as 54%, without compromising part quality or performance. Representing the first major breakthrough in material extrusion throughput in years, combined with AON3D Basis' real-time part qualification software, AON3D's additive manufacturing platform is further closing the gap between conventional and additive processes.

“Until now, polymer physics have been left out of the slicing process, relying solely on trial-and-error tuning — a time-consuming process with variable outcomes. AON3D's Multiphysics Process Optimization changes this, achieving deterministic outcomes and tying predictions to results” — Adrian Muresan, AON3D VP Software Research.

Maximizing Throughput with Polymer Physics

Utilizing a physics-based model of each polymer's rheological and thermal properties, AON3D's Throughput Optimization Module analyzes G-code to determine how heat will build and dissipate through a part. The software dynamically adjusts deposition rates based on part geometry to achieve the fastest possible print speeds without exceeding a material's melt-fracture



All picture: HASCO

limits, and before inducing overheating deformation. By coupling rheology and heat transfer properties, the system automatically accelerates when conditions allow and slows down when necessary to maintain surface finish. The result is maximum throughput without compromise: faster prints, consistent layer bonding, and smooth, repeatable parts every time — no trial and error required.

In testing, the software was able to cut 13 hours off a 24-hour print. AON3D's new software feature is a large breakthrough for the utility of additive manufacturing for production applications.

The Historical Approach and Why it Fails

Other systems on the market achieve faster printing through larger nozzles, which diminish surface finish, and trial-and-error tuning — turning up print speeds, feed rates, and extrusion temperatures until quality begins to fail,

then backing off slightly. These settings are applied globally, regardless of part size, geometry, and cooling conditions, treating every print the same. When applied to unique geometries, this one-size-fits-all approach often results in both drooping/poor surface finish, due to overheating, and unpredictable anisotropy due to variations in weld strength.

About AON3D's Additive Manufacturing Platform

AON3D Hylo™ is a large, high throughput, high temperature industrial 3D printer built for manufacturing — enabling same-day, full-scale production of end-use parts and tooling in the World's high performance polymers, with properties that exceed many metals. The platform is paired with AON3D Basis™, an additive manufacturing software that reduces the inherent complexities of printing high performance polymers. Utilizing Multiphysics Process Optimization (MPO), Basis dynamically tunes print settings based on part geometry and polymer — achieving high quality results with maximized properties in just a few clicks. In addition, Basis features real-time part qualification software with the industry's first in-situ defect detection. Combined, the Hylo and Basis provide:

- Ultra-high throughput
- High quality parts with maximized properties
- Reduced skilled labor requirements
- Ultra-low operating costs (Up to 600% lower OPEX vs. closed material systems).



AON3D

www.aon3d.com

LK Group 2026 Global Open House – Thailand Successfully Held

From February 26 to 27, LK Group 2026 Global Open House – Thailand was successfully held in Phan Thong District, Chonburi Province, Thailand. Through technology demonstrations and in-depth exchange, the event attracted hundreds of customers and industry partners from ASEAN countries. It presented LK's leading solutions in die casting, injection molding, and CNC machining, and further underscored the Group's localized service capabilities for Thailand and the broader ASEAN market, empowered by a diversified equipment portfolio.

LK Group's ties with Thailand date back to 2007, when its Thailand branch was established—marking a key milestone in the Group's ASEAN expansion. Over the past 19 years, LK has been deeply rooted in Thailand, building a highly capable localized service team and forging strong, trust-based partnerships across industries including automotive and motorcycle parts, new energy vehicles, 3C electronics, home appliances, and sanitary hardware. In 2024, LK stepped up investment in its Thailand base: the Chonburi plant doubled its facility area, while both spare parts warehousing capacity and equipment display scale were upgraded in parallel. To better meet localized requirements in Thailand and the ASEAN market, LK also launched multiple dedicated models across die casting machines, injection molding machines, and CNC machining centers, delivering more tailored configurations to match diverse regional production needs.



The highlight of the event was the injection molding area. LK presented multiple models, including the ELETTRICA series all-electric high-performance injection molding machine and the POTENZA Servo Series energy-saving injection molding machines. With high precision, fast response, and significant energy-saving performance, these machines deliver precise requirements matching for ASEAN's growing demand in precision electronics, medical, and packaging sectors. Live demonstrations also offered a direct view of equipment stability and productivity under complex operating conditions.

More than a product showcase, the Thailand Open House served as a vivid demonstration of LK's “Technical Empowerment + Localized Services” strategy. On site, LK's expert team

All pictures: LK Group

engaged customers through in-depth exchange and provided tailored process optimization recommendations based on specific local requirements.

The successful Thailand Open House further strengthened LK Group's market position in the region and injected new momentum into local manufacturing upgrades and sustainable development. Looking ahead, LK will continue working with global partners—leveraging innovative products and agile services—to support ASEAN manufacturing in advancing toward a new stage of high-quality growth.

LK Group
www.lk.world



Bole Intelligent Machinery shines at Eurasian dual exhibitions

In January 2026, Bole Intelligenttech made a simultaneous appearance at RUPLASTICA 2026 in Moscow, Russia and the 18th Bangladesh International Plastic, Packaging & Printing Industry Exhibition in Dhaka, Bangladesh. Showcasing the strength of China's intelligent manufacturing to the Eurasian market with innovative technologies and high-efficiency, energy-saving solutions, the company successfully attracted the attention of numerous international customers and partners.

Shining in Moscow: Deepening Layout in Eastern Europe, Demonstrating High-end Manufacturing Strength

As the largest plastic and rubber industry exhibition in Eastern Europe, RUPLASTICA 2026 gathered more than 1,200 exhibitors from 30 countries. With the theme of "High Efficiency & Energy Saving · Intelligent Interconnection", Bole Machinery highlighted two flagship machine models. The BL50FE small precision all-electric Injection Molding Machine is specially designed for high-precision applications such as automotive interior parts and electronic connectors. Adopting all-electric drive technology, it reduces energy consumption by 45% and achieves a repeat positioning accuracy of $\pm 0.02\text{mm}$, with excellent adaptability to the extreme climate of -40°C in Russia, which has drawn great attention from numerous automotive parts manufacturers.

The BL100EKS high-precision injection molding machine is positioned for the daily necessities market. Relying on the patented central mold-locking technology, it realizes material saving,



high precision and high stability in the production of drain baskets, which has prompted in-depth exchanges with local enterprises and technical teams.

Blooming in Dhaka: Exploring New Opportunities in South Asia, Boosting Industrial Upgrading

Almost at the same time, at the Bangladesh International Plastic, Packaging & Printing Industry Exhibition in Dhaka, Bole Machinery launched the EKW-EVO250 hybrid injection molding machine. Boasting strong power, high stability and wide material adaptability, this model perfectly meets the market demands of the rapidly growing plastic packaging, daily necessities and engineering parts sectors in Bangladesh. Through on-site demonstrations and professional consultations, the company provided a reliable choice

All pictures: Bole Intelligent Machinery

for South Asian customers to improve production capacity and product quality, opening up new channels for regional cooperation.

Dual Successes Highlight the Global Strategic Layout

Bole Machinery's simultaneous participation in the two exhibitions not only demonstrated its diversified product portfolio and strong technical strength, but also reflected its strategic resolve to accurately grasp the characteristics of different regional markets and provide in-depth services to global customers. In Moscow, the company consolidated its high-end brand positioning in the mature market; in Dhaka, it focused on tapping the growth potential of the emerging market.

The great success of the two exhibitions is a vivid practice of Bole Machinery's international strategy of "Technology Globalization, Service Localization". Looking ahead, Bole Machinery will continue to rely on innovative R&D, join hands with global partners, and contribute more Chinese wisdom and solutions to the intelligent and green development of the world's plastic and rubber industry.



Bole Intelligent Machinery
www.bolemachinery.com

SACMI at Djazagro 2026

Integrated technologies for capsules, preforms and quality control will be the focus of SACMI at the Djazagro international trade fair in Algiers, from 12 to 15 April 2026. The Safex Exhibition Park offers an opportunity to reaffirm the Group's strong investment in this strategic market, building on solid references and the ability to support local industry with complete, efficient and quality-oriented solutions.

At the heart of the proposal lies an integrated approach that combines advanced expertise in products and dies with cutting-edge machinery and vision systems. A structured offering designed to enhance the competitiveness of local industry amid growing attention to performance, process reliability and resource optimisation.

Capsules: die expertise and integrated development.

The tethered opportunity

SACMI is a global leader in the production of flat-top capsules using CCM technology. SACMI's approach stands out for its advanced expertise in die design and development. Alongside its range of increasingly sophisticated machines, it offers the widest selection of dedicated dies on the market for the production of capsules in both standard and tethered configurations.

One major feature is the possibility of benefiting from the services of the SACMI Laboratory, certified by the world's leading brand owners, which supports customers in the integrated development of capsules and preforms, from the design phase through to field validation. The integration of design, simulation, application testing and performance

verification ensures optimised weight, functionality and reliability, with solutions always configured to meet the specific needs of the customer and the target market.

Preforms: high performance and application flexibility with IPS240A

In the preform segment, SACMI has introduced solutions based on the IPS platform, designed to combine productivity, consistent quality and energy efficiency. Among the most compelling proposals for the Algerian market is the IPS240A, a compact press supporting dies with up to 96 cavities and a wide range of neck types, including the widely used 29/25 mm as well as the new 26/22 and 25/22 mm formats, ensuring maximum application flexibility.

PVS Robot: total automation of off-line preform control

Within SACMI's solutions for plugs and preforms, the integration of press, die and advanced process control systems ensures high repeatability, stability and precise control of quality parameters, in synergy with next-generation vision systems.

Increasingly advanced in terms of operator-friendliness and the ability to deliver tangible benefits to production process control, SACMI vision systems are further enhanced by the new PVS Robot, representing a significant evolution in off-line preform control. The solution is designed to elevate automation to the next level, eliminating all manual intervention during format changeovers and structurally reducing the risk of human error.



All picture: SACMI

The system integrates all the most advanced control technologies from the SACMI PVS range within a fully automated cell. Handling is entrusted to SCARA robots with automatic format storage, while advanced solutions such as the orientator, bin picking with anthropomorphic robots and 3D sensors ensure precision and continuity of inspection.

On PVS Robot, the "Robot in – Error out" architecture guarantees zero manual handling and maximum process reliability. Inspection speeds are also high, reaching up to 1,200 pieces per hour, with the option to integrate weighing systems and configure control thresholds based on the production specifications. Automatic format changeover ensures versatility in the inspection of preforms from different presses, reducing average set-up times and simplifying operation.

The offer is completed with the Smart Reject and the new "Conformity Inspection" functions, featuring advanced defect classification powered by Classy AI. A family of solutions that transforms quality control into an ecosystem fully integrated within the production process, supporting plant stability, efficiency and competitiveness.

SACMI

www.sacmi.it



WITTMANN at Chinaplas 2026 in Shanghai

At Chinaplas 2026, the WITTMANN Group is setting a milestone. For the first time, an injection molding machine will be presented that from now on is being produced at the company's own facility in China. The all-electric EcoPrimus combines precision and efficiency with very high cost-effectiveness. With a total of three live machine exhibits and a comprehensive presentation of auxiliaries and automation solutions, WITTMANN will be presenting itself as an innovative partner to the injection molding industry at Chinaplas 2026 from April 21 to 24 in Shanghai, China.

EcoPrimus: Focused on the essentials

The EcoPrimus, with a clamping force of 1000 kN, was specifically developed for high-volume single-component compact injection molding. Here, the new all-electric injection molding machine combines high precision, efficiency, and cost-effectiveness. It features a robust and compact design, and users do not have to compromise on ease of operation. Like all other current injection molding machine series from the WITTMANN Group, the EcoPrimus is equipped with the latest Unilog B8X machine control system. At Chinaplas, an EcoPrimus 100/350 demonstrates its high performance with the production of functional key rings made of PS.

EcoPower: Precision and efficiency for LSR

Also the second live machine exhibit demonstrates the efficiency of WITTMANN's all-electric injection molding machine technology. An EcoPower 110/210 is used to produce liquid silicone rubber (LSR) sealing rings in a 16-cavity mold with a single shot weight of 1.7 grams. Worldwide, applications involving silicone are becoming increasingly important. This trend is being driven by modern medical technology on the one hand and electromobility on the other. Both industries exploit the outstanding range of properties offered by LSR. Components made of liquid silicone can be used in a particularly wide temperature range from -50 to +250 °C. They have good electrical insulation properties, very good weather and aging resistance, and high biocompatibility.

The all-electric EcoPower is at home wherever precision, efficiency, and cleanliness are required—in both thermoplastic and elastomer injection molding.



At Chinaplas 2026, the new all-electric EcoPrimus injection molding machine will be presented in Asia for the first time. (All pictures: WITTMANN)

MicroPower: Everything it needs on a minimum footprint

Everything it needs for production in just two square meters—that's what the unique MicroPower concept offers for molding small and micro parts. The design of the machine allows the injection piston to reach the parting line of the mold. This reduces the mass cushion to a minimum and significantly reduces the sprue, if not eliminating it altogether. The result is higher material efficiency and improved quality consistency, as the pressure is transferred over a very short flow path.

During Chinaplas, a MicroPower 15/10 produces vascular clips made of POM with a single part weight of 0.003 g in a 4-cavity mold. The micro parts are demolded by the integrated vertically arranged scara robot and quality-checked by camera within the self-contained work cell. The good parts are deposited sorted by cavity. The work cell is equipped with a laminar flow box to ensure production under Class 7 clean room conditions in accordance with 14644-1.

Primus robot with increased load capacity

In the area of automation, WITTMANN will be presenting an Asian premiere at Chinaplas 2026. The new Primus 118 expands the range of applications for Primus linear robots for injection molding machines with clamping forces of up to 250 tons.



Encapsulated as a clean room: The MicroPower was specifically developed for the production of small and micro parts.

Whereas the maximum payload in this size range was previously five kilograms, the new robot offers a maximum payload of up to eight kilograms. A new design with reinforced demolding and vertical axes as well as reinforced drives underpin the high performance of the Primus 118. The robot offers up to ten valve slots and thus various combinations of gripper and vacuum circuits. Up to eight vacuum circuits are possible.

Tempo basic 120: Precise control with ease of use

In the auxiliaries exhibition area, several representatives from all product categories are on display live in Shanghai: temperature control units and water flow regulators, dryers and vacuum loaders, as well as granulators for in-house recycling.

These include, for example, temperature control units from the Tempo basic series. They are the cost-efficient choice for all applications which require precise temperature regulation and high operating comfort and still concentrate on the essentials. The new size 120 was developed specifically for large consumers.

G-Max XL granulator for clean, homogeneous regrind

During the four days of the trade fair, a G-Max XL granulator will be demonstrating how little it takes to obtain valuable raw material from sprues and production waste. The compact granulators of the G-Max series are suitable for soft to medium-hard plastics such as PP, PE, ABS, PU, or PC. The optimized rotor ensures clean, homogeneous regrind and high material throughput. The solid flywheel maximizes the inertia of the rotor to achieve significantly higher performance with the same energy input. With speeds of 200 rpm at 50 Hz, the number of unnecessary cutting repetitions is reduced. Thanks to the tiltable hopper, screen changes and cleaning can be carried out very easily without tools. The G-Max XL model presented at Chinaplas 2026 is the largest in the series. It is designed for a throughput of up to 100 kilograms per hour.

In-house recycling made easy: The G-Max XL granulator is designed for a throughput of up to 100 kilograms per hour.



At Chinaplas 2026, the Primus 118 is celebrating its Asian premiere. The new linear robot is a reliable and cost-effective solution for all pick-and-place applications and for use in simple automation cells.

Complete solutions from a single source

When it comes to material handling, automation, injection molding machines and mold temperature control, in-house recycling, digital technologies, or complete solutions from a single source, WITTMANN is the reliable partner for all industries that require high-quality and affordable plastic products, such as packaging, medical technology, automotive, and household appliances. "Our expanded production facility in Kunshan represents WITTMANN's transformation from a single-unit supplier to a full-service total solution expert," emphasizes Kevin Wang. "Here in China and Asia, we can now offer our customers integrated system solutions from a single source that are produced entirely locally." **smi**

WITTMANN Group
www.wittmann-group.com



The ENGEL Group presents solutions for packaging and medical at Chinaplas 2026

At Chinaplas 2026, taking place from 21 to 24 April in Shanghai, the ENGEL Group presents a total of six production solutions in live operation. They cover a broad spectrum of industrial applications and show how efficiency, process stability and cost efficiency in series production can be specifically improved. Two of these exhibits specifically address the requirements of the packaging and medical sectors, in which high cavity counts, short cycle times as well as reproducible quality and cleanliness determine competitiveness.

All-electric packaging application for high cavity counts and short cycle times

ENGEL presents all-electric precision and high performance with a compact production solution based on an e-mac 380 injection moulding machine with 3,800 kN clamping force. Special versions of flip-top closures are manufactured from 90% HDPE and 10% LDPE in a 48-cavity mould from Cartisan.

The production solution is designed for high output with simultaneous precise process control and thus addresses requirements where high cavity counts,

The all-electric WINTEC e-win 3200 combines stable process control with a compact design, thereby enabling the cost-efficient production of medical mass products.



The all-electric e-mac 380 enables short cycle times, reproducible quality and energy-efficient series production on a compact footprint at high cavity counts. (All picture: ENGEL)

short cycle times and reproducible quality determine cost efficiency. The all-electric e-mac supports this with precise motion sequences, high repeatability and energy-efficient operation. The part weight of the application shown is 1.73 g, resulting in a shot weight of 83 g. The short cycle time is just over 10 seconds.

The combination of energy efficiency, stable process control in multi-cavity moulds, compact design and integrated automation makes the all-electric ENGEL e-mac an optimal solution for highly automated series production in the packaging segment with simultaneously reduced space requirements.

The high efficiency of this production solution is supported by digital assistance systems. iQ clamp control automatically optimises the clamping force and thus reduces energy consumption, mould wear and scrap. iQ hold control optimises the holding pressure without manual intervention and thereby contributes

to the reduction of material usage and cycle time. iQ weight control plus compensates for fluctuations in material viscosity in real time by adjusting the injection volume within the same shot. This stabilises component quality and significantly reduces scrap.

The exhibit is additionally equipped with the iQ process observer, which analyses more than 1,000 process parameters in parallel and detects deviations at an early stage. This provides processors with transparent process monitoring including specific recommendations for action, enabling scrap to be reduced, downtime to be avoided and system availability to be increased. This lowers unit costs, particularly at high cavity counts.

All-electric medical production with high cost efficiency

In the medical sector, the ENGEL Group brand WINTEC presents an all-electric production solution on an e-win 3200 injection moulding machine with 3,200 kN clamping force. The compact machine produces 10 ml Luer-lock syringe barrels from polypropylene with a part weight of 4.6 g in a 48-cavity mould from TK. For short cycle times of 10 seconds and a clean material flow, the components are freely discharged onto a covered Z-conveyor belt. The added value of



this production solution lies in the combination of precise manufacturing, compact machine design and controlled part handling.

Users receive with the WINTEC e-win an all-electric injection moulding solution with precise motion sequences and parallel movements, combined with robust construction and high

energy efficiency. The production solution enables stable processes, high productivity and cost-efficient manufacturing with a future-proof investment in a standardised solution environment.

This production solution is also supported by digital assistance systems for the automatic stabilisation of process

control. iQ clamp control optimises the clamping force, iQ hold control stabilises the holding pressure and thus the cycle time, while iQ weight control plus compensates for fluctuations in material viscosity and reduces scrap.

ENGEL

www.engelglobal.com

Haitian International: “Level Up! Your Advantage”

Under the motto “Level Up! Your Advantage,” Haitian International will present solutions for the next level of intelligent manufacturing at Chinaplas 2026. The focus is on machine performance, digital connectivity, and synergies within the Haitian Group. Haitian will showcase developments across the entire manufacturing process—from standalone machines and connected production cells to integrated system solutions.

World premiere, automotive application, and electric production cell

At the center of the trade show presentation is the official introduction of the MA2500V/1000 Ultra from Haitian Plastics Machinery. As a new Ultra version of the fifth machine generation, it expands the MA5 platform specifically toward higher precision, greater stability, improved energy efficiency, and intelligent process support. At the booth, the machine will produce cooling fans for the home appliance industry in a multi-cavity insert molding application with a cycle time of 35 seconds. This application stands for high process stability, consistent part quality, and sound process design even under demanding processing conditions. At the same time, it demonstrates the platform’s potential for more advanced Injection Molding+ applications.

For the automotive sector, Haitian Plastics Machinery will present an application on a JU5500V/3450 for the production of microcellular foamed motor hoods. The process used is physical foam injection molding with micro-opening for low read-through surfaces. This application demonstrates stability and long-term reliability in the processing of large structural parts while also highlighting the close integration of process technology, automation, and data connectivity.

For the drone industry, an electric production cell featuring a ZE1900VM-210hu-V80hs from Zhafir Plastics Machinery and an MDVR75 from Niigata Plastics Machinery will be on display. The solution enables the integrated assembly of rotor blades and blade clamps and stands for high output, high repeatability, and reduced-labor to unmanned operation. In this way, Haitian International’s expertise in precision injection molding, electric drive technology, and integrated automation—up to smart, unmanned manufacturing—becomes clearly visible.

Digital transparency with the X-Injection Molding Cloud

The X-Injection Molding Cloud is Haitian’s AI-powered platform connects

machine-side data with cloud intelligence to improve process setup, optimization, and real-time production monitoring. Its key highlights are fast first-shot parameter recommendation, AI defect diagnosis, early warning for process deviations, and deep native integration with Haitian machine controllers for smarter, more stable, and more efficient production.

The platform creates real-time transparency, supports the optimization of processes and operations, and strengthens data-based decision-making. At the same time, it provides the foundation for the continuous advancement of installed production technology.

From the world premiere of the MA5/ Ultra, to industry-specific applications, the X-Injection Molding Cloud, and cross-divisional solution approaches, Haitian International at CHINAPLAS 2026 demonstrates how machine performance, data availability, and integration expertise can be translated into a continuous manufacturing strategy.

Haitian International
www.haitian.com

All picture: Haitian International



Medical technology in focus at Chinaplas

Dr. Boy GmbH & Co. KG will be exhibiting at Chinaplas in Shanghai (Hall 2.1, Stand F86) together with its Chinese representative Andeli Co., Ltd. The focus of the trade fair presentation will be on two applications from the field of medical technology, which highlight BOY's special expertise in micro and precision injection moulding.

BOY XS E: Resorbable tissue clip made of PPDO

An absorbable tissue clip for surgical applications is manufactured on a BOY XS E. The tissue clip made of PPDO (polydioxanone) has an article weight of only 0.105 g. It is produced with a 2-cavity mould and a shot weight of 0.5 g.

This application highlights the strengths of the BOY XS E in processing sensitive materials and extremely low shot weights. Maximum precision, process stability and reproducibility are crucial, especially for absorbable implants – requirements that are reliably met by BOY micro injection moulding technology.

BOY 25 E: Precision component for medical injection pen

As a second application, a threaded rod for dosing an insulin cartridge used for administering medication is produced on a BOY 25 E. The polystyrene (PS) part has an article weight of 0.68 g. It is manufactured with 8 cavities and a shot weight of 5.44 g.

Here, too, dimensional accuracy, surface quality and stable series production are essential. The BOY 25 E impressively demonstrates how economical and reliable high-precision medical components can be manufactured.

Growing medical technology market in China

"The market for medical technology in China is growing very dynamically. Against this backdrop, we are presenting two



Picture: BOY

machines for specific medical components that are intended as implants for surgical applications. Micro injection moulding is one of the greatest strengths of BOY injection moulding machines. Our customers particularly appreciate the ability to produce high-quality, precise components with high added value on BOY machines," explains Xin Bingbin, Manager of Andeli Co., Ltd.

The Chinese medical technology market places high demands on quality, efficiency and process reliability. With its compact, energy-efficient and high-precision injection moulding machines, Dr. Boy GmbH & Co. KG offers optimal solutions for demanding medical applications – especially in the field of micro and small parts production.

BOY
www.dr-boy.de

PiovanGroup at Chinaplas 2026

From 21 to 24 April 2026, PiovanGroup, with its brands Doteco, Pelletron, Piovan, Piovan Fdm and Piovan Food & Powders, will be exhibiting at Chinaplas 2026 in Shanghai, the international exhibition for the plastics industry.

PiovanGroup's sales engineers will present state-of-the-art technologies to customers from all over the world. Visitors will have the opportunity to discover first-hand innovative plastics technologies and applications, with a focus on Flexible Films, PET & rPET, Compounding, Recycling, Automotive, Technical Parts sectors and solutions for Industrial Cooling.

At the Stand C72, Hall 4.1, Piovan will display innovative technologies for

material handling produced in China such as:

- GenesysMax, the high performance, fully automatic, mono-hopper drying system that reduces production costs and can achieve a dew point up to -60 °C.
- Quantum, the gravimetric batch blender in a special configuration, ensuring high dosing precision, accuracy, quick material change and simple cleaning
- HandlinkEvo, the manual coupling station that avoids contamination while assuring vacuum.

Regarding lab solutions, the following will be on display:

- Inspecta AC, the analyzer that detects the presence of acetaldehyde in PET finished or semi-finished products.



GenesysMax — mono-hopper drying system (All Pictures: PiovanGroup)

- Moisture Minder, the solution for the in-line measurement of the moisture in the plastic granules.



Quantum, the gravimetric batch blender in a special configuration

In the recycling field, lots of novelties on display including:

- Condenso, the oil condenser, designed to condense the low boiling substances released from the plastic pellets, rPET or flakes during the heating process.

- Easypure, the odor removing system that allows a significant improvement in the quality of the recycled material, being integrated in the process of mechanical recycling, after the pelletising phase. Easypure can be equipped with OdorMinder that provides an immediate evaluation of the effectiveness of the odor removal process.

All visitors will be able to experience a live demo of Winfactory 4.0, the supervision software designed by Piovan to increase plants' productivity and optimise product quality.

In the PiovanGroup's stand there will be a dedicated corner for industrial cooling. On display, Capchiller, the line of water cooled chillers for very high flow applications such as caps and medical products produced locally in China. This line has been specifically designed for all applications that requires very high temperature accuracy, high water flow rates in relation to cooling capacity and



HandlinkEvo, the manual coupling station

high pressures. In addition visitors will have the opportunity to discover the full range of temperature controllers with Easytherm.

In addition, Piovan FDM, the Group company focused on blending systems for extrusion lines will present GDS, a loss-in-weight blender for pellets, flakes, regrind, additives, and powders. It is the ideal solution when continuous dosing with the highest level of accuracy is required.

PiovanGroup
www.piovan.com

Chinaplas 2026: BASF debuts Elastollan® GripTec, a new innovative thermoplastic polyurethane

At Chinaplas 2026, BASF will unveil Elastollan® GripTec, a new innovative thermoplastic polyurethane (TPU) portfolio designed for the sports footwear industry, unlocking new possibilities for outsole design and manufacturing. The new Elastollan GripTec series combines exceptional grip, durability, design flexibility and sustainability, and is designed for running and hiking enthusiasts, as well as lifestyle fashion and kidswear applications.

"Footwear brands are always looking for materials that enhance user experience and improve safety. Elastollan GripTec - our next-generation TPU outsole solution - is set to redefine footwear performance while enabling greater design flexibility and advancing our commitment to sustainability," said Rohit Roop Ghosh, Vice President, Business Management TPU, Performance Materials Asia Pacific, BASF. "Preliminary feedback from leading global footwear brands have been positive and validates the market potential of Elastollan GripTec. We will continue to collaborate with more customers to strengthen their competitiveness and drive innovation across the industry."

Driving superior performance and design freedom

The Elastollan GripTec TPU portfolio is engineered to deliver superior traction, rugged durability and excellent abrasion resistance across a wide range of conditions.



Picture: BASF

It also offers design freedom, with options ranging from transparent to black, and allows for more creative and detailed outsole designs using TPU.

To address diverse application requirements, the Elastollan GripTec series comprises three grades:

- Elastollan GripTec 10H: Best-in-class in abrasion with excellent durability
- Elastollan GripTec 11HT: Rubber-like feel with better transparency, enabling greater design freedom
- Elastollan GripTec 12T: Superior transparency with a balanced performance profile

BASF
www.basf.com

CHINAPLAS 2026: Harnessing the “15th Five-Year Plan” to Usher in a New Era of Plastics and Rubber Innovation

As China embarks on the first year of its “15th Five-Year Plan,” a dynamic blueprint for innovation and high-quality development in the plastics and rubber industries is set to unfold at CHINAPLAS 2026. “The Recommendations of the 15th Five-Year Plan” emphasizes cultivating emerging and future industries, expanding high-level openness, and advancing intelligent, green, and integrated development. These priorities provide fertile ground for the plastics and rubber industries and anchor the exhibition’s strategic focus.

Spanning over 390,000 sqm, CHINAPLAS 2026 will serve as a “Living Laboratory” of policy implementation and industry transformation. Under the theme “Transformation · Collaboration · Sustainability”, the exhibition will take place from April 21 to 24, 2026 at the National Exhibition and Convention Center (NECC), Hongqiao, Shanghai, PR China, empowering the industry to capitalize on new opportunities amid times of change.

Emerging Industries Drive New Growth Frontiers

“The Recommendations of the 15th Five-Year Plan” highlights strategic clusters in new energy, advanced materials, aerospace, and low-altitude economy, alongside breakthroughs in quantum technology, biomanufacturing, hydrogen energy, fusion energy, brain-computer interfaces, embodied intelligence, and 6G communications. These emerging fields are rapidly expanding the application boundaries of plastics and rubber, unlocking new growth frontiers for this fundamental pillar of manufacturing.

New Energy Vehicles (NEVs)

In 2025, China produced 16.6 million and sold 16.5 million New Energy Vehicles (NEVs), maintaining global leadership for 11 consecutive years with year-on-year growth of 29% in production and 28.2% in sales. New generations of material solutions for batteries, charging



infrastructure, and drive systems are emerging. Rianlon’s advanced polymer antioxidants effectively extend the service life of battery systems and charging equipment under extreme conditions. DOMO’s high-purity engineering plastics, TECHNYL® PURE, with outstanding electrical insulation and chemical resistance, are well suited for high-voltage environments.

Low-altitude Economy (LAE)

In 2026, the low-altitude economy (LAE) is entering a triple boom of policy, technology, and market demand. With logistics, tourism, and emergency rescue driving demand, plastics and composites are becoming strategically vital for this trillion-RMB market. Covestro’s high-CTI polycarbonate (PC) delivers reliable performance and safety in harsh electrical environments, ensuring stable operations of electric Vertical Take-off and Landing (eVTOL) aircraft. Kingfa’s KingPan®

All pictures: Adsale Exhibition Services

flame retardant composite panels, with high glass-fiber content and V-0 flame retardancy, can withstand 1,200°C fire exposure for 30 minutes without dripping, and self-extinguish within 10 seconds of flame removal, making them suitable for critical eVTOL components.

Commercial Aerospace

Commercial aerospace is experiencing explosive growth, creating enormous demand for materials and equipment. By





December 2025, China submitted plans to the International Telecommunication Union (ITU) for the deployment of more than 200,000 satellites, marking a substantial acceleration in the construction of China's low-orbit satellite internet.

Carbon-fiber reinforced nylon composites with lightweight and high strength properties have become an innovative choice for satellite brackets. PEEK and PEKK offer outstanding high-temperature, radiation, and chemical resistance, making them suitable for satellite structural components, cable insulation layers, and engine seals. Phenolic resins, with high char yield and excellent processability, are used in commercial solid rocket nozzles. Liquid Crystal Polymers (LCP), with low dielectric constant, low dielectric loss, and excellent high-temperature performance, have become key materials for high-frequency satellite communication components.

Syensqo's lightweight composite materials can replace metals in aerospace structures. Its prepreg and MTM46 epoxy resin system developed for extreme environments, such as space missions, this material delivers stiffness, impact resistance and thermal performance that surpasses metal alternatives. Payload fairings produced with this material can be around 30% lighter than metal equivalents, enabling lower fuel

consumption, higher payload capacity and reduced manufacturing cost.

Humanoid Robotics

2025 marked the first year of mass production for humanoid robots, and 2026 is a critical turning point toward scaled deployment and accelerated commercialization. Humanoid robots are rapidly evolving from "performing on stage" and "competing in arenas" to "serving in households" and "working in factories."

IDC forecasts that in 2025, China's spending on embodied intelligent robots exceeded USD 1.4 billion, with a projected compound annual growth rate (CAGR) of 94% over the next five years. In this blue ocean market, breakthroughs in material technologies are the core enabler of scaled adoption, with plastics and rubber playing an indispensable role.

Specialty engineering plastics such as PEEK and PPS, with high strength, low density, wear resistance, and self-lubricating properties, are increasingly replacing metals in robot joints, gears, and bearings. TPEs are used in flexible components such as artificial muscles and artificial skin. Lushan New Materials has launched a new generation of bimodal electronic skin products, capable of precisely detecting subtle forces such as light touches and pulses. Dawn Group



has developed ultra-soft artificial muscle TPEs with a Shore hardness of 0A, offering exceptional softness, elasticity, and a dry, non-sticky surface feel, making them suitable for core components such as robotic joint actuators.

CHINAPLAS 2026 will gather more than 4,600 leading global exhibitors, actively responding to market demand while showcasing cutting-edge technologies, diverse application scenarios and strong industry vitality. The exhibition will serve as an efficient bridge connecting traditional industry upgrades, emerging industry expansion, and future industry development.

Intelligent Upgrades and Green Transformation

"The Recommendations of the 15th Five-Year Plan" calls for the comprehensive implementation of the "AI+" initiative, aiming to seize the





commanding heights of AI applications and empower industries across the spectrum. At the very start of 2026, a series of policy measures were introduced nationwide, accelerating innovation in the integration of “AI+ manufacturing”. From industrial chain collaboration and upgrading to precise empowerment of SMEs, AI technologies are now being fully embedded across all aspects of the manufacturing sector.

Addressing the inefficiencies and low fault-tolerance of traditional manual quality inspection, AI technologies are now delivering a breakthrough solution, which precisely detecting micron-level defects while continuously learning and iterating inspection standards, ensuring that even the smallest flaws are exposed.

Good Vision & Motion will showcase a high-speed quality inspection system at CHINAPLAS 2026. Combining advanced vision technology with AI algorithms, it enables real-time quality monitoring and defect detection on high-speed production lines, completing comprehensive product evaluations within milliseconds. Jeenar will present its AI valve-bag inspection system, which detects and eliminates defects during production, reducing labor costs and improving product stability. ENGEL has introduced injectAI, an iQ process observer system equipped with AI that can automatically analyze more than 1,000 parameters in real time, accurately identifying production deviations and providing optimization suggestions.

The Recommendations also emphasizes accelerating a comprehensive green transformation. The plastics and rubber industries, as a vital part of manufacturing, are driving circular development through innovation, building an infinite loop ecosystem of “production–use–recycling–regeneration,” turning waste into a new starting point for the circular economy.

BASF, in collaboration with Porsche and BSR, completed the world’s first pilot project for recycling mixed end-of-life vehicle waste. Using gasification technology, complex residues (including plastics, films, paints, and foams, which were traditionally managed through thermal recovery methods) were converted into syngas and derivatives, which replaced fossil feedstocks in BASF’s integrated value chain to produce polyurethane formulations for new car steering wheels, achieving a closed loop of “scrap parts → raw materials → new parts”. Boretech has developed three customized “rebirth solutions” — glycolysis, microwave alcoholysis, and solvent processes — targeting PET, PP, PE, and composite/dyed plastics. These establish efficient chemical recycling systems that transform waste plastics into high-quality recycled raw materials.

Recycled plastics, bio-based and degradable materials, recycling technologies, digital solutions, and energy-efficient equipment will be the highlights of CHINAPLAS 2026, with live demonstrations bringing the intelligent and green vision of the “15th Five-Year Plan” into reality.

Expanding High-Level Openness: A Global Meeting Place

2026 marks the opening year of the “15th Five-Year Plan” and a pivotal year for China to demonstrate resilience and vitality amid complex global economic conditions. The Recommendations underscores expanding high-level openness, promoting two-way investment cooperation, and guiding cross-border industrial and supply chain layouts. Chinese enterprises are moving from “products going global” to “industrial chains going global” and “ecosystems going global.”

BYD is building a plant in Hungary. SAIC Group has partnered with a Turkish company to establish a manufacturing facility. CATL has launched its third European battery plant in Spain. Kingfa has scaled production in Vietnam and Spain, while advancing overseas bases in Poland, Mexico, and South Africa. IZUMI has established subsidiaries in 12 countries, including Germany, the U.S., India, Turkey, and Mexico. By the end of 2025, Chinese enterprises had set up more than 50,000 overseas companies across 190 countries and regions.

In the meantime, foreign investors continue to expand in China. In 2025, actual foreign investment reached RMB 747.69 billion, with 70,392 newly established foreign-funded enterprises, a year-on-year increase of 19.1%. Here are the examples: Forvia from France expanded its plant in Changshu, Jiangsu. BASF’s Zhanjiang integrated base launched a one-million-ton ethylene unit. Covestro opened a new TPU production facility in Zhuhai.

Against this backdrop of “going out” and “bringing in,” the value of international trade platforms is increasingly prominent. As a hub for face-to-face technical exchange and business matchmaking, CHINAPLAS effectively breaks information barriers, builds industry consensus, and strengthens collaborative innovation. It provides Chinese enterprises with channels to connect with overseas markets and adapt to regional needs, while offering foreign companies a window into China’s manufacturing strength and innovation capabilities. With decades of accumulated influence, CHINAPLAS has become the global meeting place for the plastics and rubber industries, continuously attracting exhibitors and buyers worldwide. *smi*

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Picture: Messe Düsseldorf

Injection molding novelties at K 2025

Throughout 2025, various companies, focusing on designing and manufacturing of machines, molds and special tooling were tirelessly launching their new developments for benefit of the injection molding sector. Many of these state-of-the-art novelties were demonstrated at K 2025 – the world's leading plastics and rubber trade fair, that was held in Düsseldorf, Germany, October 8-15 2025.

Among the most highlighted exhibits at K 2025 were six injection molding machines demonstrated by prominent machine builders.

More space, more efficiency, more precision: World premiere of the tie-bar-less ENGEL victory electric

With the new victory electric, ENGEL launched a world-first at K 2025: a tie-bar-less electric injection moulding machine that sets new standards in precision, energy efficiency and flexibility. The completely redesigned clamping unit combines the proven advantages of tie-bar-less technology

with the dynamics of electric drive systems – enabling higher productivity within the same footprint.

Tie-bar-less means: more space in the mould area, faster mould changes and easier automation. ENGEL has already installed more than 85,000 machines of this design worldwide – a clear proof of the concept's success. The victory electric now combines these well-established benefits with those of an electric machine design in the clamping force range above 1,300 kN. This closes a gap in the market where many processors are actively seeking such solutions.

The new ENGEL victory electric impresses not only with technical

precision but also with clear economic advantages. Its compact design reduces the overall machine length by around 200 mm, allowing for optimised production layouts. At the same time, the tie-bar-less design enables the use of significantly larger moulds compared to conventional machines of the same clamping force class – without additional investment. For example, a mould that would typically require around 3200 kN can be operated on a victory electric 220 with just 2200 kN clamping force.

At the heart of the machine is a newly developed clamping unit with two vertically arranged pressure bars. These replace the traditional toggle



mechanism for building up clamping force and ensure exceptionally uniform force distribution across the entire mould mounting platen. An integrated deformation compensation system keeps the platen parallelism stable and precise – even with complex or large-area mould geometries. The newly designed moving platen performs key functions such as centring and force transmission, contributing significantly to the machine's compact design.

All main movements are powered electrically via a servo motor with ball screw – a drive system that has proven its reliability in ENGEL machines for many years. A particularly efficient feature is the integrated recovery of braking energy, which not only reduces overall energy consumption but also improves the carbon footprint of the production process.

The standard integration of a hydraulic unit adds extra flexibility by enabling the use of hydraulic core pulls. Components such as the ejector and position

More mould space, smaller footprint: The new electric ENGEL victory electric 220 with 2200 kN clamping force enables compact production thanks to its tie-bar-less design and reduced machine length. Pictures: ENGEL

transducers are taken from the proven ENGEL duo series, ensuring maximum stability and process reliability.

The victory electric expands ENGEL's tie-bar-less machine portfolio with a powerful electric variant. In addition to the servo-hydraulic victory and the hybrid e-victory, an electric solution is now also available in the medium clamping force range – ideal for processors looking to combine energy efficiency, precision and maximum mould space. This makes the machine perfectly suited not only for standard injection moulding applications, but also for high-performance requirements.

With the new victory electric, ENGEL provides a consistent answer to the growing demands for space efficiency, energy savings and process stability – compact, electric and tie-bar-less.

Netstal presented the latest generation of the successful Elion series for medical technology applications

The new generation of the successful Elion series for medical technology applications celebrated its world premiere at K 2025. Thanks to numerous optimizations, users can produce even more efficiently than before on a smaller footprint.

With the new Elion MED, Netstal has brought a highlight in the field of injection molding machines to Düsseldorf. The newly developed generation builds on proven technology and supplements it with significant optimizations to further increase production efficiency. The significantly shortened and compact design of the new machine is particularly striking. Thanks to an optimized geometry of the toggle lever for the fastest drying cycles, a new injection gearbox with a compact metering drive, a two-part control cabinet and a modified protective cover, Netstal has been able to significantly reduce the length of the machine compared to its predecessor models with identical clamping force. The clamping unit area also offers better accessibility for maintenance work. The conversion of the entire Elion portfolio is taking place in stages. To start with, four variants with 1200 and 1750 kN clamping force are available. The target portfolio consists of further variants and will cover the clamping force range from 800 to 4200 kN.

High energy efficiency, uniform force distribution and maximum repeatability: The new clamping system with pressure pad and ball screw ensures precise mould centring and shorter cycle times. Pictures: ENGEL





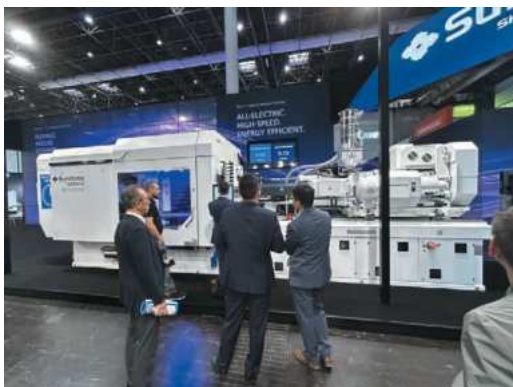
World premiere at K 2025: The new Elion MED from Netstal in the 1200 kN clamping force version. Pictures: Netstal

**Genuine Netstal:
Fast, precise, reliable**

With the new Elion MED, customers receive the leading injection precision and shot-to-shot consistency that Netstal has stood for for decades. This is achieved by high-precision sensors and the extremely high sampling rate of 2 kHz. Injection control is based on the principle of direct injection force measurement RFC (Responsive Filling Control), which is used exclusively at Netstal. The newly revised quality monitoring system also ensures seamless monitoring and assurance of production quality.

The stable mold plates and the generously dimensioned guides ensure maximum precision with minimal deformation in the clamping unit. The newly designed toggle lever with a so-called double connecting rod distributes the closing force over two bearing points

Sumitomo (SHI) Demag presents its latest 420t PAC-E machine at K 2025. Pictures: Sumitomo (SHI) Demag



and has also been separated from the axis for the electric ejector. With these improvements, the new Elion MED offers users even greater reliability and availability. At the same time, it is particularly powerful compared to the competition and enables outstanding efficiency in day-to-day production. Netstal has trimmed all drive components such as motors and gearboxes for maximum performance and a broad performance profile. This means that the new Elion MED can maintain consistently high speeds at high pressure in 24-hour continuous operation for many years. To significantly increase energy efficiency compared to the predecessor model, Netstal has designed a new type of direct drive for the unit movement and the application of the nozzle contact pressure.

**Maximized efficiency
in the clean room**

Thanks to fully encapsulated and water-cooled drive motors and the hermetically sealed control cabinet, the new Elion MED is virtually emission-free. In addition, the protective cladding has been redesigned for optimum cleanability with smooth surfaces and screws that are not visible from the outside. Despite the very compact design, the new protective housing offers full flexibility for the integration of system and peripheral components. The new Elion MED can be used in clean rooms up to class ISO 7 without any additional precautions. With additional equipment options, higher requirements

can be achieved individually according to customer requirements.

**Clean toggle PAC-E powers
medical excellence**

Redefining clean, energy-efficient injection moulding for the medical industry, Sumitomo (SHI) Demag presented its latest 420t PAC-E machine at K 2025. Able to manufacture and stack 30 ml medication dispensing cups at a rate of 57,600 cups per hour, PAC-E was engineered specifically to deliver peak sustained performance in fast cycling applications. With its high injection speeds and exceptional precision, the PAC-E enables flawless multi-cavity production, even for extremely thin-walled products.

Setting a new three-second milestone for mass manufacturing healthcare applications ranging from medical cups to centrifuge blood collection tubes, the clean-toggle technology also meets the strict hygiene demands stipulated in medical manufacturing. Combined with the intelligent stacking system from Zubler Handling as well as the pick-and-place robot and the 48-cavity mould tool from Otto-Hofstetter, production rates on the 420t PAC-E can reliably reach around 432 million components per year. The entire production cell, including all periphery equipment, is relatively compact in comparison to all-electric machines generating similar volumes, adds the sector specialist.



New MacroPower 500/3400 with one-piece machine body. Pictures: WITTMANN

The cavity tool from Otto-Hofstetter enables the injection of the cup, with a shot weight of around 70 grams, to occur centrally via the point gate. Additionally, the highly efficient, thermally balanced cooling system comprises 29 water cooling circuits. This guarantees thermal stability in the mould, supporting safe and continuous production. Furthermore, the tool is designed to remove moulded parts from the front, making it more straightforward to access and service.

Giving medical processors total control

Product quality is maintained using intelligent high-definition vision cameras placed along the high-speed extraction axis. Installed by Zubler Handling, a 100 % inline control system with cameras processes 96 images for every extraction. Anomaly detection and dimension measurements are performed

on each image with an accuracy of 0.05 millimetres.

After removal from the tool, the cups are stacked on a round table equipped with two sections. Each section has 48 compartments for each corresponding cavity. Once the rotary table is fully stacked, it moves to its next position where the cavity stacks are sorted by the pick & place robot. The robot can handle eight stacks simultaneously, separating them individually into good or bad cases.

The new MacroPower with a one-piece machine body

The highlight of WITTMANN presentation at K 2025 was the new MacroPower 500/3400. Although the machines of the MacroPower series from WITTMANN BATTENFELD have always scored by their small footprint and consequently modest space requirements on customers' production floors, the new MacroPower stands out by even greater compactness. This has been achieved by a completely new design with a spacesaving, one-piece machine body.



HAIBOX Picture: Haidlmair

The machine's injection unit also comes with a new design and is now pivotable. These features help users primarily to save the valuable resource of time. Firstly, the one-piece machine body facilitates installation and setup of the machine on the customer's site, and secondly, the pivotable injection aggregate, accessible from both the machine's front and rear sides, makes screw changes much easier. The new MacroPower is fitted with the Unilog B8X control system, which includes several control system components developed inhouse.

These make it possible to reach a higher internal clock frequency and consequently shorter response times to sensor signals, resulting in a higher reproducibility of parts with the familiar ease of use and visualization.

On the new MacroPower 500/3400, a box known as "HAIBOX" was produced from a type of PP delivered by Borealis, using a single-cavity mold supplied by Haidlmair, Austria. The machine was equipped with a WITTMANN IML unit.

At K-Fair 2025, Stork IMM introduced the next generation All-Electric 6600-3550 with 2K, a true innovation in the segment. Pictures: Stork IMM





M3 series injection molding machines offer unparalleled performance in an extremely compact, user friendly package. Picture: MHS

The labels coming from Viappiani, Italy, were inserted on both long sides of the box. Following parts removal, a thermal photo of every shot was taken by a thermal imaging camera and then compared with the reference picture from the approval process. The pictures were checked by the TD14.0 software from SKZ, Germany, evaluating any deviations from normal temperature differences. If the temperature is outside the tolerance margin, a signal is sent to the robot to have the respective part sorted out. Next, the good parts are placed on a conveyor belt.

A new benchmark in high-performance injection moulding

At K-Fair 2025, Stork IMM introduced the next generation All-Electric 6600-3550 with 2K, a true innovation in injection moulding. Unlike anything currently available on the market, this machine combines 2K heavy-duty performance with all-electric precision, offering manufacturers a sustainable and future-proof alternative for high-output packaging production.

Inside next-generation M3 micro injection molding machine with patented ISOKOR technology. Picture: MHS

The Stork IMM all-electric range represents a completely new development — delivering performance levels that no other injection moulding machine builder has yet achieved. Designed for thin-walled packaging applications, the Stork IMM all-electric excels where competitors cannot reach the same mould filling performance.

With its optimized design, the 6600-3550 2K can accelerate extremely fast, making it possible to achieve exceptional flow-length-over-wall-thickness ratios. This means higher part quality and productivity in even the most demanding applications.

Application Highlight: 2-Cavity 5L Pail with Handle and IML

The all-electric Stork IMM 6600-3550 was demonstrating the production of a 2-cavity 5L pail with handle and in-mould labeling (IML) in just 5.9 s. This live showcase underlined the machine’s unique ability to combine speed, precision, and energy efficiency in heavy-duty packaging applications.

For the production of pails with handles it has been proven that the ultrafast acceleration capabilities of Stork all electric system has major benefits for both, product quality and output. Dynamics, inertia and clamp position repeatability are major factors to repeatably produce high quality products with best quality. Obviously this behaviour results in higher productivity with lower material consumption.

Built for High-Performance Packaging

The Stork IMM all-electric range is designed for flowerpots, pails, food packaging, and other thin-walled products. With clamping forces ranging from 2500 kN to 9000 kN, these machines provide:

- Ultra-fast injection speeds up to 450 mm/s with improved accelartion, enabled by twin low-inertia electrical motors
- Improved platen stiffness and stability for perfect product quality and longer mould lifetime in packaging moulds.



- Rack-and-pinion design for greater energy efficiency and long-term durability.

- Heavy-duty reliability to run 24/7 at short cycle times, with low energy consumption.

Sustainable by design; long life time of mould and machine.

New standard in precision micro injection molding at K 2025

At K 2025 in Düsseldorf, MHS (Mold Hotrunner Solutions Inc.), a Westfall Technik company, premiered – with live demonstrations – its revolutionary M3 micro injection molding machine, equipped with patented ISOKOR® Technology.

The M3 represents a breakthrough in high-volume production of direct-gated, precision micro parts, all with zero waste and unmatched consistency. Engineered for complex components under 200 milligrams – and as small as 10 milligrams or less – the M3 eliminates cold runners to reduce cycle time and conserve material.

Despite its compact, standardized design, the M3 offers flexible manufacturing options. A modular base tooling system supports interchangeable inserts, core pulls, side actions, and ejectors to accommodate sophisticated part geometries. The integrated 8-drop valve gate hot runner remains fixed during mold changes, simplifying operation and maximizing uptime.

Supporting a wide range of engineering thermoplastics, including PEEK, LCP, and PEI, the M3 is built for performance, reliability, and versatility. At the heart of its performance is the ISOKOR® three-stage molding process, which revolutionizes micro part production:

1. Melt Compression – Pre-compression occurs in the screw.
2. Hot Runner Storage – Further compression and energy storage in the hot runner.
3. High-Velocity Injection – Rapid viscoelastic expansion fills the mold cavity in milliseconds.

This process produces denser, more isotropic parts with minimal shrinkage

and internal stress. The entire system is equipped with high-resolution sensors monitoring temperature, pressure, position, and time, ensuring full traceability and repeatability.

The M3’s controlled melt path starts with granule conditioning in an integrated dryer, followed by gentle screw melting, and final heating in the hot runner – protecting sensitive materials from degradation. A cascade pressure profile and stable melt delivery ensure consistent part morphology.

- Key performance highlights:
 - <3-second dry cycle time.
 - Electromagnetic force-based, clamp-free mold interface.
 - Electric linear motor with sensor-driven mold movement.
 - Supports up to 32 cavities, including two-component and dual-part molding
 - Inline quality inspection, part separation, and robotic handling integrated within the cell.
 - Cleanroom-ready design, with optional HEPA filtration and optical inspection. *smi*

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Opening new avenues to efficiency with groundbreaking innovations

At K 2025, Oerlikon HRSflow was showcasing its STARgate HRS hot runner technology

At K 2025, Oerlikon HRSflow was showcasing its groundbreaking STARgate HRS hot runner technology, which enables precise control of melt injection into the mold cavity through a revolutionary Valve Gate concept. Another new development presented was the Glow HRS solution, which allows for the direct injection of aesthetic parts in amorphous materials. Systems from the global hot runner specialist were also running live at partner companies, including an injection molding tool for automotive parts that delivers a flawless surface and minimizes secondary operations. Beyond, visitors could expect to see interesting developments in application-specific solutions for multi-cavity systems. These included the Up Nozzle series, which was specifically engineered for compact, tight-space applications with low shot weights, and new solutions designed for luxury and eco-friendly parts in the beauty and personal care industry.

K 2025 presentation was organized in close cooperation with Oerlikon HRSflow's sister brand, Oerlikon Balzers, highlighting the group's integrated approach to innovation and excellence.

A radical change in injection molding - patented solution

With its newly developed STARgate HRS hot runner technology, Oerlikon HRSflow presented its revolutionary concept for the injection molding industry to the public for the first time at K 2025. This technology is a groundbreaking development in the injection molding of PP, PE, PS, and other amorphous thermoplastics. Compared to conventional designs, production, assembly, and maintenance of various components are unnecessary; cycle time is significantly reduced; color changes are easier; and power consumption and pressure loss are reduced. Additionally, the thickness of the back plates can be reduced. STARgate HRS hot runner technology also enables short filling and packing times. At K2025, this technology was on display at BMB, an Italian injection molding machine manufacturer, during the production of a bucket. This project was made possible by Oerlikon HRSflow, the Dutch plastics processors Dijkstra Plastics, R&D Plastics, BMB, Oerlikon Balzers and Piovan.

Avoiding halos

Another innovation unveiled for the first time at K 2025 was the patent-pending GLOW HRS technology, which enables the production of high-quality parts by direct injection, avoiding halos. With precise surface temperature control and a compact design, this cutting-edge solution easily adapts to a wide range of applications.



Oerlikon HRSflow's new STARgate HRS® hot runner technology uses a diaphragm-like element in the gate plane to manage melt flow into the cavity. (all pictures: Oerlikon HRSflow)

Paint-free, premium automotive parts

At the booth of injection molding manufacturer Haitian International Germany, Oerlikon HRSflow gave a live demonstration of how the FLEXflow HRS servo-controlled needle valve technology can be used to get high-quality automotive parts directly from the mold. This was illustrated by the manufacturing of a car wheel arch. Developed in collaboration with DNP Group (producer of automotive decoration film printing) and Inevo (mold maker), this joint project impressively demonstrates that the painting of large-format injection-molded parts can be eliminated, minimizing the need for expensive post-processing, even when using recycled materials. Other advantages of FLEXflow HRS technology include quick color changes and reduced material waste.

MULTIflow HRS: New nozzle series and PET thick wall solution now available

With its compact gate-to-gate pitch (down to 15 mm), the new Up Nozzle series from Oerlikon HRSflow was specifically

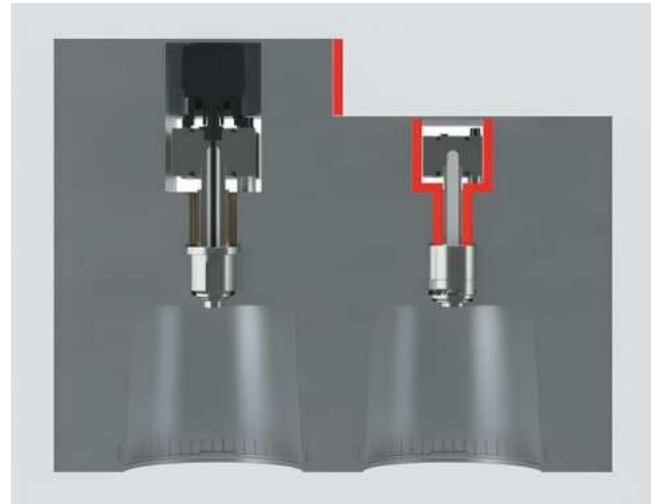
engineered for tight spaces with low shot weights. With a 12-mm nozzle cutout, the series delivers exceptional performance in hard-to-reach gate areas. These features make the series ideal for industries such as beauty and personal care, packaging, beverages, and technical applications.

At their booth, Oerlikon HRSflow presented crystal-clear, eco-friendly parts produced with dedicated hot runner solutions for luxury cosmetic packaging. These components benefit from advantages of the technology, including crystal clarity, significant wall thicknesses of up to 12 mm, and high process repeatability.

Advanced injection moulding technology live

- At the Engel booth, a three-drop system from the Ga series of Oerlikon HRSflow’s Diamond Lux line of hot runner solutions was demonstrated for producing a rear light concept application. In this process, a decorative foil is back-injected with PLEXIGLAS® 8N from RÖHM and then overflooded with PUR. The foil enhances the visual design of the final product. This project is a collaboration between Zechmayer (toolmaker), LEONHARD KURZ (LED and surface design integration), Engel (injection molding machine producer), and RÖHM (material supplier).

- BOY’s booth featured the injection molding of a conical blood filter using a Jestar medical demonstration mold on a BOY 35E injection molding machine. This process utilized Oerlikon HRSflow’s Multi Valve Plate (MVP) technology in conjunction with a 16-drop MULTIflow HRS system from the SP series. This



Left: the standard valve gate solution. Right: the STARgate HRS® technology, which reduces cycle time and requires significantly less installation space than conventional needle valve systems.

technology offers synchronized valve actuation and reduced drop-to-drop spacing, enhancing precision in small weight applications. **smi**

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Picture: Messe Düsseldorf

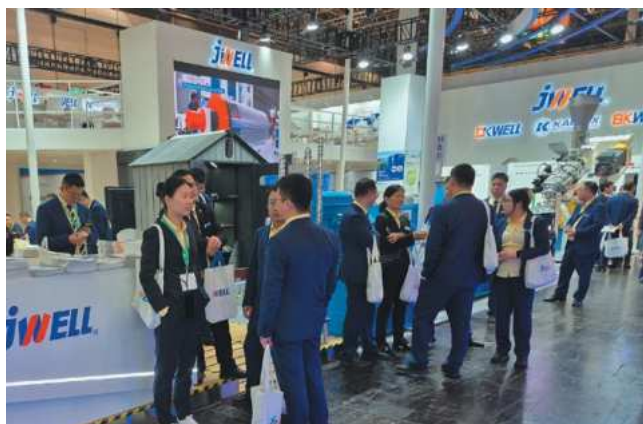
Blow molding novelties at K 2025

Since the previous edition of the K Show in 2022, companies, focussing on designing and manufacturing of extrusion and injection blow molding machinery and special tooling had launched a lot of new developments. Many of these state-of-the-art novelties were demonstrated at the K 2025 Show that was held in Düsseldorf, Germany, October 8 - 15 2025.

Kautex 90th Anniversary: Heritage and Innovation

In January 2024, JWELL Machinery completed its full acquisition of Kautex, Germany, officially inheriting its 90-year legacy of extrusion blow molding technology and brand resources, further strengthening its international competitiveness in the high-end equipment sector.

As a global leader in extrusion blow molding technology, Kautex celebrated its 90th anniversary during the K Show. Since developing its first commercial blow molding machine



in 1935, Kautex's technology has been widely used in the automotive, packaging, and industrial product sectors. The joint booth was showcasing the new vitality of Kautex's deep technological heritage and the integration of Jwell's global resources, providing visitors with an opportunity for interactive exchange.

Tahara presented advanced multilayer blow molding technology

At the K 2025 show, Tahara Machinery Ltd. of Japan, a subsidiary of the Japan Steel Works (JSW), introduced its MBD series: all-electric double station extrusion blow molding machines with internet connectivity.

The range of product sizes for these machines is 300ml to 1.5 liters. The MBD-C33A/54E2Z-AP(C3) at the show was molding three-layer 1L bottles, using Tahara's own coex die head. The middle layer is composed of post-consumer recycled (PCR) resin.

Notably, the machine on display can mold bottles with eco-friendly materials such as PCR, polyethylene containing calcium

The joint booth was showcasing the new vitality of Kautex's deep technological heritage and the integration of Jwell's global resources (Picture: VM Verlag)



The MBD-C33A/54E2Z-AP(C3) at the show was molding three-layer 1L bottles, using Tahara's own coex die head (Picture: Tahara)

carbonate, and bio-based resins in the middle layer. Its screw design, featuring barrier flights, a Maddock mixer, and dam flights, ensures excellent mixing and uniform dispersion of PCR materials.

Since launching the world's first all-electric blow molding machine in 1994, Tahara has built a strong track record of meeting diverse customer requirements, offering screw designs optimized for specific materials.

Using PCR in the middle layer helps bottle molders comply with increasingly strict environmental regulations while reducing material costs. Regrind material can also be used in the middle layer, enabling waste resin reuse. Additionally, adding pigment only to the outer layer helps lower raw material costs.

Though recycled materials can potentially affect appearance or raise concerns about contents contacting them, multilayer bottles solve these issues. Applying virgin resin on the inner and outer layers prevents contact between the contents and recycled or regrind layers. This avoids chemical reactions and protecting the appearance of the bottle.

Tahara machines are equipped with "EWON" for remote maintenance via VPN. By allowing Tahara operators to perform initial diagnosis using the customer's machine information (logging data) and PLC data (programs and error history), the need for on-site inspections can be reduced. This enables faster on-site support by preparing necessary parts and tools in advance. In some cases, issues can be resolved entirely through remote support, cutting down both the time and cost of dispatching engineers. Moreover, accurately identifying faulty parts helps avoid unnecessary replacements.

Nissei ASB unveiled latest innovations at K2025 Under "All-in-One Sustainable Bottle Solutions", featuring advanced machines, molding technologies, and cutting-edge bottle designs

Nissei ASB Machine Co., Ltd., a world leading manufacturer of machines and molds for injection stretch blow molding of PET and other plastics, demonstrated live molding of four separate technologies at the K 2025 exhibition.

Four machines, each from a different Series in the ASB lineup and each showcasing improvements in productivity and efficiency using various technologies, will make live molding demonstrations, with three of the four making their global debuts at the K 2025 exhibition.



Redefining PET Bottle Production with the Power of 1.5-Step Molding. (Picture: Nissei ASB)

1. PF36/36-600 + 500ml water bottle

The PF36 Series is a line of PET injection stretch blow molding machines that merge 1-Step and 2-Step processes into a "1.5-Step" system. The displayed model has 36 injection cavities and 12 blow cavities, producing 500ml bottles at 18,000 units per hour.

Its 3:1 blow-to-injection ratio ensures high efficiency, shorter cycles, and lower operating costs. Compared to equivalent 2-Step systems, it requires only one-third of the floor space, consumes up to 20% less energy by using residual heat from injection, and delivers higher, more consistent product quality without dependence on external preforms.

The machine uses hybrid actuation systems of hydraulics, pneumatics, and servo motors, all managed by ASB's Vision1™ control system, which supports OPC UA standards for advanced connectivity, integration, remote monitoring, and diagnostics.

Pure Performance: Precision-Molded 500ml Generic Water Bottle

The 500ml, 13gram water bottle is a typical design used in global markets. In line with circular-economy trends the PF36/36-600 will demonstrate molding using 100% recycled PET (R-PET) material without compromising output or product quality.



Global Debut: Setting the Standard in Compact Preform Molding. (Picture: Nissei ASB)

2. PM-90/111N + Preform Molding

The PM-90/111N, ideal for small to medium-scale preform production, offers 12, 18, 24, or 36 cavities depending on preform size.

Its vertical mold clamping and injection system, derived from the proven PF36 Series, delivers precise high-speed performance while minimizing the machine's footprint.

Preforms pass through an integrated cooling system for 3.5 cycles, ensuring stable, fully cooled output resulting in top-quality bottles.

Internal studies show around 40% lower investment cost, 30% less floor space, and up to 20% lower energy use per preform compared to similar machines. Control and monitoring are managed via ASB's Vision1™ system as standard.

High-Quality Preforms Molded to Perfection

The 10gram preform is suited to generic 500ml water bottles with the neck design conforming to the current European standard for tethered cap retention after opening. Molding resin is 100% R-PET.



ASB Unveils World's First 1.5-Step Double Blow Heat-Set Machine – Advancing Sustainable Bottle Production. (Picture: Nissei ASB)



The Next Generation Hybrid Electric for Smarter, Cleaner Bottle Production. (Picture: Nissei ASB)

3. ASB-70DPH/50E + 500ml HDPE trigger spray

The ASB-70DPH/50E is a fully re-engineered version of ASB's best-selling model, now featuring electric operation of all major movements, including the advanced injection unit and perform stretching, with hydraulics used only where high clamping force is needed.

This hybrid design minimizes energy use, hardware cost, and maintenance while enhancing control and productivity. Energy consumption for driving power is reduced by an estimated 25% compared to the hydraulic version, while faster, more precise servo movements shorten cycle times, boost output, and ensure smoother, quieter operation. Servo-driven stretch rods improve molding consistency, especially with sensitive resins or complex designs.

The machine comes standard with ASB's Vision1™ control and monitoring system and remains fully compatible with existing mold sets.

Advanced Innovation: Enhanced HDPE Designs Molded by ISBM

HDPE resin offers strong resistance to household products containing chlorine or bleach, while the flawless neck finish, and no weld lines that ensures leak-free performance from the ISBM process has driven steady growth in ASB's HDPE projects. While ISBM has traditionally produced simple round HDPE containers, ASB's advanced preform conditioning station now enables non-round and specialty shapes. The high-precision front-face parting line of the blow mold further boosts productivity, increasing moldable cavities of the demonstrated container from 5 to 7 — a 40% rise over conventional designs

4. HSB12-4N/111N + 2L Returnable & Refillable CSD bottle

ASB introduces the world's first 1.5-Step machine capable of molding double blow heat-set returnable and refillable PET bottles directly from resin. Combining the strengths of 1-Step and 2-Step molding, it delivers high-quality output in a compact footprint. ASB's Double Blow Heat-Set technology increases material crystallinity and reduces stress, enhancing thermal stability and resistance to environmental stress cracking—ensuring high reusability even at lighter weights. With sustainability in focus, ASB leverages its packaging expertise and advanced molding systems to meet the growing demand for eco-friendly solutions.

Engineered for Sustainability: CSD Bottles Built for 25+ Return and Refill Cycles

The bottle meets stringent global standards with a 4.2 gas volume rating, making it suitable for all leading carbonated soft drink brands and capable of more than 25 return and refill cycles. Weighing just 90 grams—7.5% lighter than the industry standard—and made with up to 30% R-PET, it offers superior sustainability. Returnable and refillable PET bottles are about 90% lighter and have a 30% lower carbon footprint than glass. Though twice as heavy as single-use PET bottles, their extended lifespan of around 25 refills means that only 8-10% of PET material is consumed for an equivalent volume of filled product.

The molding machines were demonstrated at K 2025 together with a range of matched upstream & downstream ancillary equipment including chiller, resin dryer, mold temperature controller, mold dehumidifier, conveyor systems, etc.

BME: A major step forward compared to Magic's oldest hydraulic Biaxial series. (Picture: Magic)





Type SB2-150 is a version of the PRESSBLOWER Injection Blow Moulder, designed for bigger lot sizes. (Picture: OSSBERGER)

The space that you need for rPET

At K 2025, the Italian Magic MP s.p.a. presented a range of its blow molding machines. One of the most interesting exhibits was a new BME model.

This injection stretch blow-moulding machine (ISBM) is major step forward compared to the company's oldest hydraulic Biaxial series. A load of customer-focused technology, which brings many benefits, ranging from energy savings to equipment savings; in addition to the linear movements of preforms and bottles it has also the blowing station in two different phases. Equipment savings make one more major plus. This machine relies on the new system, patented, complete with movable mould carrier to allow the cavities of the blowing mould to be reduced by 50%.

To blow 6 preforms, traditional technology would require 6 blowing cavities, with a clamping force of approximately 30-35 ton. With BME model there are only 3 blowing cavities and the required clamping force is reduced by 40%. Specially designed for customers who need production in limited volumes, this machine allows them to blow simultaneously two differently shaped bottles, with an apparently similar preform and different neck.

The machine can be equipped with in line or 90° injection station. This groundbreaking project will allow the machines to be upgraded and many new details to be introduced.

Applications: Personal Care & Medical

Bottles for clean rooms, environment friendly and for the consumer.

Cosmetic & Pharmaceutical

High quality and safety for the final user. Simple to recycle.

Household & Cleaning

For high durability bottles, free from contamination and resistant to the surrounding environment.

Parts as light as a feather

OSSBERGER Plastics Technology (Germany) is internationally established in the production of bellows for the automotive industry. Products made on its machines are installed in almost all cars worldwide. The OSSBERGER PRESSBLOWER Techniques enable the production of bellows, shock absorber applications or boots with minimal tolerance ranges.

At K 2025 in Dusseldorf, OSSBERGER demonstrated its PRESSBLOWER SB2-150 model - a version of the Injection Blow Moulder, designed for bigger lot sizes. The machine works on two production stations at the same time. In addition, by optimizing the motion sequences the cycle times achieved by the previous type SB2/60 can be shortened. The attached switch cabinet reduces space requirements.



The new all electric machine CXT 810 HT CoEx3 for the L-Ring Drums production. (Picture: ST BlowMoulding)

World Premiere: Full Electric Machine for Ultra Clean L-Ring Drums

At the K 2025 show, ST BlowMoulding unveiled a fully electric blow molding machine dedicated to the production of 220 LL-Ring drums. Tailored for ultra-clean applications such as those in the semiconductor industry for wet electronic chemicals, this machine represents a market-first solution.

This solution is unique in the market, representing the lowest energy consumption ever achieved in this category combined with the highest compatibility with clean room facilities, lowest contamination by oil, dust and metal ions and highest final product quality. It incorporates:

- A multi-toggle full-electric clamping unit, developed on 2020, now a global market success.
- The exclusive adiabatic "H" extruders for gentle plasticizing and high throughput.
- ABB SynRM motors, enabling exceptional energy efficiency.
- A fully electric 3-layer extrusion head, in collaboration with W. Müller.
- The PWDS® system by Feuerherm, fully electric, delivering high-precision wall thickness distribution.
- Special coatings, filtration, and detection systems to meet ultra-clean requirements.

This innovation sets a new standard for energy savings, low contamination, and superior product quality.

The K 2025 visitors had an opportunity to explore ST BlowMoulding's ongoing advancements:

- All-electric clamping units for machines up to 200tons
- Industry-leading adiabatic extruders and foaming technologies
- High-throughput machines for industrial packaging (L-Ring Drums, IBCs)
- Multilayer extrusion using PCR and PIR materials, in both continuous and discontinuous processes
- Hydrogen liner technologies for composite pressure vessels
- High-end suction blow molding solutions for EV coolant lines
- Dual Head machines with enhanced automation and OEE
- Energy-efficient retrofits for legacy machines (ST and competitors)
- Patented hands-free AHC systems for fast head-tooling changeovers
- A comprehensive portfolio of clamping units, tailored to all application types
- Automated and user-friendly HMI with IO-Link and OPC UA integration. **smi**

SmartLine: The New Fully Electric Extrusion Blow Moulding Machine Series

With the new fully electric SmartLine, Bekum expands its machine portfolio with a series consistently engineered for efficiency and cost-effectiveness. Developed entirely from scratch, the new machine range enables a cost-efficient entry into extrusion blow moulding technology — while delivering convincing performance in energy consumption and life-cycle costs.

The SmartLine combines a 30% reduction in machine investment with Bekum's proven process and quality expertise. New sourcing and manufacturing concepts form the foundation for these investment advantages. At the same time, optimized drive technology in combination with energy-efficient HiPEX extruders reduces energy costs by up to 20%. Precise process control and efficient material utilization additionally enable material savings of up to 10%.

"A strategic milestone is the world premiere of our fully electric SmartLine series, which we presented for the first time at K 2025. We clearly understand that our customers, particularly in consumer packaging, must calculate sharply. With the new SmartLine, we were able to reduce machine investment costs by 30%," emphasizes Managing Partner Michael Mehnert.

Compact Solution for Consumer Packaging

The SmartLine is specifically designed for small and medium-sized producers in the consumer packaging segment as well as for newcomers to extrusion blow moulding technology. With the first two models — SBLOW 5S/D and SBLOW 15S/D — Bekum introduces a compact single-station (S) and double-station (D) blow moulding machine featuring 50 kN and 150 kN clamping force respectively, and opening strokes of 380 mm and 560 mm. Maximum mould width is 370 mm and 560 mm respectively, with mould heights of 350 mm and 500 mm. This makes the machine ideally suited for demanding packaging applications while maintaining a small footprint.

Energy-Saving High-Performance Extrusion

The SmartLine also relies on proven high-performance HiPEX extruders and Bekum's proprietary extrusion heads. The system ensures high process stability, maximum output rates, and excellent melt homogeneity. Uniform wall thickness distribution across the entire circumference of the hollow body guarantees reproducible production results and consistent part quality. Short flow paths and homogeneous temperature control support stable and economical production.

Model SBLOW 5S single-station blow moulding machine with 50 kN clamping force, also available as a double-station machine (all images Bekum)

Precise Clamping Unit with Rotary Servo Motor

The SmartLine clamping unit is driven by an electromechanical rotary servo motor. Unlike continuously rotating electric motors, the rotary motor moves precisely to a defined angle and stops exactly at the required position. This enables a compact machine design, simplified control architecture, and high positioning accuracy — combined with reduced energy consumption.

Bekum Control 8.0 – Intuitive and Industry 4.0 Ready

Equipped with the proven Bekum Control 8.0, the SmartLine features a



powerful and future-proof machine control system. The 24" Full HD portrait touch display offers intuitive operation and clearly visualizes throughput and energy data via dashboard. Integrated Industry 4.0 functionality enables seamless integration into digital production environments.

Digital Services Included

The SmartLine is fully integrated into Bekum’s digital service environment. Bekum SmartConnect provides real-time remote support. A digital spare parts catalog ensures permanent access to relevant component information. The service portfolio is complemented

Compact 300 ml bottle, produced on the SBLOW 5S, as demanded in the consumer goods market



Die SmartLine Serien Features				
Maschine Type	SBLOW 5S	SBLOW 5D	SBLOW 15S	SBLOW 15D
Schließkraft (kN)	50	50	150	150
Verfahrweg (mm)	380	380	560	560
Formöffnungsweg (mm)	200	200	220	220
Trockentaktzeit (s)	2,5	2,5	3	3
Formbreite (mm)	370	370	550	550
Form Höhe (mm)	350	350	450	450
Form Tiefe (mm)	2 x 100	2 x 100	2 x 140	2 x 140

Technische Änderungen vorbehalten
Ab 2026 sind zwei Maschinengrößen als Ein- und Doppelstationen-Maschine verfügbar.

by worldwide Bekum Field Service and reliable spare parts availability.

Technical data for the new SmartLine

Modern and Functional Machine Design

The SmartLine follows the award-winning Bekum machine design concept. The machine impresses with its modern and functional appearance as well as generous access and visibility areas. The ergonomic machine concept supports maintenance, mould change processes, and operator convenience in daily production.

With the SmartLine, Bekum offers an economical, energy-efficient, and technologically advanced solution for companies entering extrusion blow moulding technology or expanding production capacities in a cost-optimized manner. **smi**

Bekum
www.bekum.com

Bekum Maschinenfabriken GmbH

Founded in Berlin in 1959, Bekum Maschinenfabriken GmbH is one of the world’s leading manufacturers of extrusion blow moulding machines. Founder Gottfried Mehnert conceived the name Bekum as the acronym (Berliner Kunststoff Maschinen). In 2016 the son Michael Mehnert took over. He is responsible for the management of the company as managing director. The company began to flourish in its founding year with the development of the world’s first neck-rim calibration. Numerous innovations and patents followed, confirming that Bekum, with its innovative and customer-oriented machinery solutions, has always been ahead of its time – and remains so to this day. When innovative and economical machinery solutions with high productivity for individual packaging requirements of hollow packaging are in demand, then Bekum, with 65 years of experience in blow moulding technology, is the first choice worldwide.

With future-oriented and reliable production processes and fully electric, as well as hydraulic machinery for the commercial production of blow moulded containers ranging from 5 ml to 3000 l, Bekum offers everything for plastic packaging from one source.

With 18,000 machines delivered and installed worldwide - about half of them still in use - the Bekum Group has achieved by far the largest production of blow moulding machines of any brand. The Bekum Group serves approximately 100 countries around the world directly or through representatives.

Automatic inline de-flashing of injection-molded work pieces

For quality reasons a globally leading manufacturer of garden implements and motorized tools established a plastic injection molding system for engine parts at its production facility in the United States. The geometrically complex work pieces are de-flashed in a swing chamber blast machine, model RWS 1200-I4-SAT2, supplied by Rösler. This system, completely integrated into the manufacturing flow, allows fully automatic de-flashing of the work pieces and their transfer to the assembly line at the precise output speed of the injection molding machine.

In forest and garden maintenance as well as landscaping and construction the tools and implements of this company, headquartered in Germany, enjoy a first-class reputation around the world. They are produced at various locations on several continents. To maintain the excellent international quality reputation of the motorized tools, purchased components must meet extremely high standards regarding dimensional accuracy and functionality. Two injection-molded thermoset engine components, supplied by external suppliers for the US manufacturing facility, did not consistently meet the specified quality standards. For this reason, the company decided to make these components in-house, including the removal of flashes created during the molding operation. Since in Europe the company cooperates with suppliers, who offer excellent solutions from Rösler for the "de-flashing of plastic components", the engineers responsible for this project contacted the Rösler US subsidiary in Battle Creek (Michigan).

Challenging quality and cycle time requirements

The specifications of the garden implement manufacturer were quite comprehensive and detailed, demanding full automation of the entire manufacturing operation. Among other things, this included supplying the injection molding machine with threaded bolts, the actual molding operation, the de-flashing and cleaning of the components - containing through-holes



- at a cycle time of 60 seconds (per two parts) and, finally, the transfer of the de-flashed components to the assembly line. Based on processing trials, conducted by the sales and process management team at Rösler, an equipment concept was developed around the proven swing chamber machine RWS 1200. This system was specifically designed for gentle de-flashing of thermoset and highly filled thermoplastic components.

Consistent and efficient processing with minimal non-productive idle production times

The compact RWS 1200-I4-SAT2 system has two chambers, each containing two

The RWS 1200-I4-SAT2 for fully automatic de-flashing of thermoset components achieves the required results at a cycle time that is 25% lower than specified. This results in lower operational costs.

rotating satellite stations with integrated fixtures for holding the work pieces measuring about 55 x 80 x 80 mm (LxWxH). This clever dual chamber design ensures that while in one chamber the work pieces are de-flashed, finished and raw work pieces are unloaded, respectively, loaded in the other chamber. This practically eliminates any non-productive idle production times.



The clever design of the RWS 1200-I4-SAT2 de-flashing system with 2 x 2 satellite stations allows de-flashing work pieces in one chamber, while finished/raw work pieces are unloaded/loaded in another chamber. This greatly minimizes unproductive, idle production times

A robot handles the precise placement of the components on the workpiece-specific holding fixtures, which were designed and built by Rösler in close cooperation with the customer. In the blast chamber two (2) pairs of injection blast nozzles, positioned at the upper and lower end of a vertical linear shuttle unit, are accelerating and precisely throwing the specially developed, non-abrasive blast media onto the rotating work pieces. Since the rotational positioning of the satellite stations is extremely precise, robotic handling of non-round, random-shaped components at the load station poses no problem whatsoever.

In addition, the precise rotational positioning, in combination with the vertical linear unit and the multi-step

process control, allows a temporary stop of the work piece rotation. This ensures that difficult-to-reach surface areas like drilled holes can be reliably de-flashed. Depending on the work piece shape, each individual nozzle can be turned on or off during the various process steps, which guarantees a highly efficient shot blasting operation. Upon completion of the de-flashing process residual blast media and dust are removed with a compressed air blow-off system.

All process steps, such as picking up the work pieces for their precise placement on the holding fixtures, the settings of the linear shuttle unit, the defined rotation stops, the turning on/off of individual nozzles and the blow-off cycles, are stored in workpiece-specific

programs and visually displayed on the operating screen of the PLC. This fulfilled another customer requirement.

Shorter processing time yields substantial cost savings

The new RWS 1200-I4-SAT2 de-flashing system works so effectively that the cycle time for de-flashing 2 work pieces is about 15 seconds below the 60 seconds specified by the customer. During this “saved” time the media and compressed air consumption is practically zero. This represents significant savings in resource and energy usage and reduces the overall operational costs.

Excellent media quality and ATEX compliant dust collection

The highly effective blast media recycling and cleaning system with air extraction from the blast chamber and screening unit, combined with automatic media replenishment, guarantees consistently high media quality for the de-flashing operation. The special Rösler antistatic additive, injected into the blast chamber and automatically replenished, significantly reduces electrostatic charges and, thus, minimizes adhesion of dust and media on the finished work pieces. Finally, the shot blast machine is equipped with an ATEX compliant dust collection system. *smi*

Rösler
www.rosler.com

The blast nozzles, placed at the top and bottom of a vertical linear shuttle unit, can be moved up/down and individually turned on or off.



The digital pressure control of each individual nozzle ensures high process safety and stability (all images: Rösler)



RuiMu Precision relies on WINTEC

The Chinese high-tech company Weihai RuiMu Precision has massively expanded its production capacities and is relying on the injection moulding technology of ENGEL's WINTEC brand. In the newly opened 12,000 m² production facility in Weihai, more than 20 WINTEC machines form the backbone of the highly automated manufacturing operations.

The strategic realignment of RuiMu is a response to the profound changes in the global manufacturing industry. "In the past, 'Made in China' mainly meant getting things done, with quality being of secondary importance," explains Xiankun Bi, Chairman of the Group. Today, the path into the premium segment is crucial for future viability. RuiMu is therefore investing specifically in value creation depth and is relying on a machinery pool that meets the highest requirements for quality, efficiency and long-term stability.

WINTEC as the technological backbone

RuiMu's machine park includes all-electric ENGEL e-mac injection moulding machines with a clamping force of 1,800 kN, all-electric WINTEC e-win machines with a clamping force of 3,100 kN, as well as two-platen t-win injection moulding machines from WINTEC with clamping forces between 4,500 and 18,000 kN. This broad setup enables RuiMu to manufacture a wide range of products for international customers in Europe, the USA, Japan and Korea – from automotive lighting to printers and intelligent household appliances.

For Technical Director De Dong, WINTEC is the logical choice: "WINTEC combines the technical DNA of ENGEL with an outstanding fast return on investment. The machines deliver both quality and value." According to Dong, the key features are high repeatability with deviations of less than 0.1 per cent, short cycle times, and a 15 per cent increase in efficiency with more than 20 per cent lower energy consumption compared

RuiMu is relying on injection-moulding machines from WINTEC for the expansion of its plant in Weihai, which impress in series production with high cost-effectiveness, reliability and quality. (all images ENGEL)



From left: Feng Zou, WINTEC Sales Agent; Zhaogang Qu, RuiMu; Xiankun Bi, Chairman Shandong Yichen Holding; Dandan Du, RuiMu; De Dong, RuiMu

with previous solutions, as well as full real-time control of all process parameters.

Large free mould space for maximum efficiency

Since RuiMu manufactures a wide range of products, frequent mould changes are part of daily operations. The company benefits particularly from the t-win two-platen machines. Their large daylight opening significantly speeds up mould changes and thereby increases overall equipment effectiveness (OEE). The first WINTEC machine from 2018 has been running without limitations to this day, providing impressive evidence of the long-term stability of the machines.

Digitalisation and process stability

The C3 control unit forms the central element of all WINTEC injection moulding cells. Operators can store process parameters at the push of a button and reproduce them exactly, which prevents reworking and quality fluctuations. WINTEC's support in the form of training, service and integration enables RuiMu to reliably implement even complex high-volume production with the highest quality requirements.

With the investment in WINTEC injection moulding machines, RuiMu has found a solution that combines stability, precision and scalability – not only as a technical platform but as part of a shared vision. "We build for generations," emphasises Xiankun Bi. "The equipment must meet this standard – WINTEC does that." **smi**

ENGEL

www.engelglobal.com

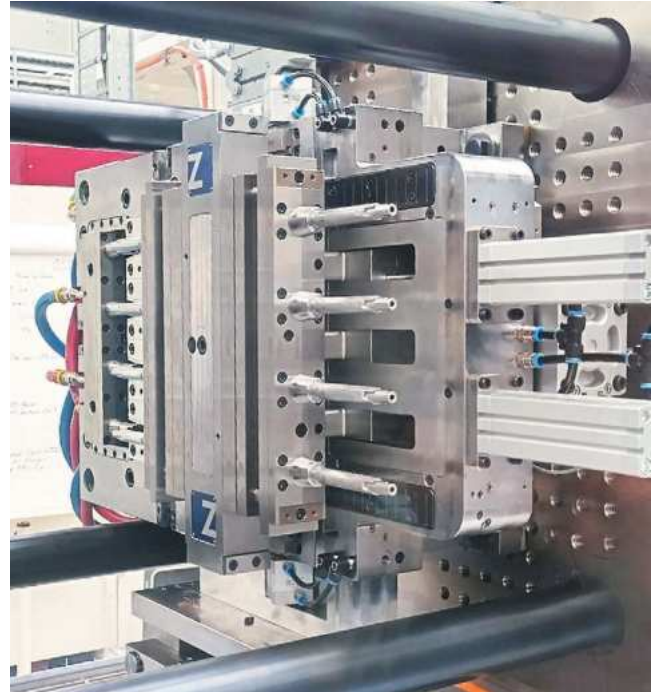
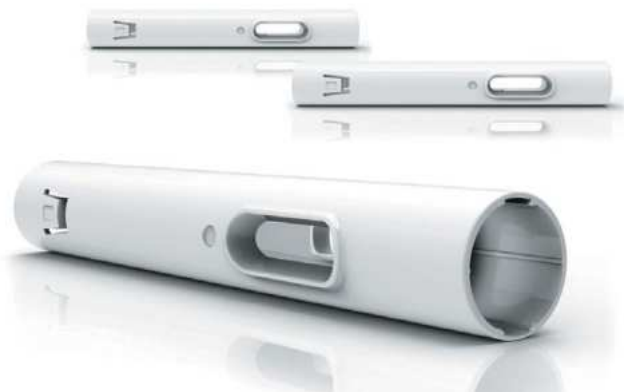
ZAHORANSKY presents Z.SONIC turn

New mold concept boosts efficiency in the production of pen and auto-injector components

With Z.SONIC turn, ZAHORANSKY introduces a mold concept that significantly accelerates the large-scale production of housings for pen and autoinjectors while also making it more energy- and space-efficient. Against the backdrop of dynamically growing demand for such injectors – primarily due to the rapidly growing market for GLP-1 drugs – Z.SONIC turn offers manufacturers an effective possibility to make the best possible use of their production capacities. Depending on the application, the solution enables cycle times to be reduced by up to 30 percent, increases output by around a third, and reduces manufacturing costs per part by a good 20 percent. Sample ROI (return on investment) calculations also show that the investment can be amortized after approximately nine months, which is significantly faster than with conventional molds. Z.SONIC turn was presented to the public for the first time at K 2025 at the NETSTAL booth. The mold concept was part of a production line with the ELION MED injection molding machine and hot halves with servo-electric needle valve control from EWIKON.

Rotate, remove, re-inject – without any loss of time

At the heart of Z.SONIC turn is an advanced indexing technology that shifts part of the residual cooling away from the mold and makes part removal cycle-neutral. While the mold remains closed, an integrated rotary unit takes over the positioning for removal. At the same time, the next shot is already starting. In the application shown at the trade fair – a four-cavity mold for autoinjector housings – a cycle time of around twelve seconds was achieved. The compact design also reduces the mass of the mold by around 1,000 kilograms compared to conventional solutions. This shortens heating times, reduces the energy required, and simplifies the design, as complex relative movements are no longer necessary. “Many visitors told us that Z.SONIC turn was the most innovative application at the trade fair for them. They were particularly



Z.SONIC turn was presented to the public for the first time at K 2025 at the NETSTAL booth. (all images ZAHORANSKY)

impressed by the seamless interaction between the machine, mold, and automation,” says Simon Hug, Head of Global Account Development at ZAHORANSKY.

Higher output, lower unit costs, smaller footprint

The advantages are immediately reflected in the key figures: Compared to a conventional mold concept, the annual output in a sample calculation increases from approximately 8.5 million to over 12.8 million parts, while unit costs decrease by 23 percent. Despite a higher initial investment, the payback period is reduced to around nine months. At the same time, the compact, lighter design takes up less space and energy – a plus, especially in cost-intensive clean rooms. With Z.SONIC turn, ZAHORANSKY delivers a future-proof, scalable solution for manufacturers of pen and auto-injectors who want to quickly expand their capacities while increasing overall equipment effectiveness. “Our approach is to focus on smart technologies rather than on more and more cavities. With Z.SONIC turn, we are demonstrating what ZAHORANSKY stands for: innovation in action, consistently geared towards performance and quality,” summarizes Simon Hug. **smi**

ZAHORANSKY
www.zahoransky.com

Saving material and boosting overall efficiency

With a central material supply system from WITTMANN, elasto has reorganized material handling in injection molding production. The investment is part of a comprehensive modernization package aimed at achieving long-term competitive unit costs at the German site.

Well-known elasto ranks among the largest suppliers of promotional items in Europe. From giveaways right up to high-quality household, lifestyle and sports articles, the product portfolio of its shop includes an immense range of different options. Ever since its foundation in 1980, the company with its headquarters located in the German town of Sulzbach-Rosenberg, has seen continuous growth, and this trend continues. A key factor here: close connection between economic and ecologic strategy. “For promotional items made of plastics, major brand owners increasingly turning to European production”, emphasizes Marcus Sperber, who manages the family-owned company in the second generation.

“Made in Germany” as a quality seal is an integral part of the sustainability strategy. This strengthens the local economy, but also involves some new challenges. After all, people are not always willing to pay more for “Made in Germany” products. So, efficiency and productivity on the shop floor must be improved continuously to keep unit costs competitive.

12.5 million Euros for new, resource-saving processes

More than 600 from the total range of 1400 articles are manufactured in Germany. Primarily plastics products, for this is what the parent company in Sulzbach-Rosenberg has specialized in. The machinery, presenting itself in a shiny new environment, consists of 18 injection molding machines with clamping forces ranging from 50 to 300 tons as well as a stretch blow molding and a blow molding machine.

Most recently, elasto has invested 12.5 million Euros in a new, resource-saving production and logistics center. A completely new hall was built for the logistics department, and the production was moved into the original hall after it had been vacated and thoroughly refurbished. This hall now offers significantly more space and thus caters to the growing demand for advertising articles made in Germany. “Over the last few years, we had already added some new, larger injection molding machines, which stretched the original hall to the limits of its capacity”, reports the Production Manager Markus Rösel. “A constant challenge was the low, gable-shaped ceiling of the hall. All machines had to be positioned in such a way that the robots could operate below the gable top.” This restricted flexibility, since the installation of an overhead crane was not possible either. Material supply was stored decentralized in the old hall. The granulate containers stood directly beside the injection molding machines, and the granulate was filled into the hoppers by hand. “Two staff members were fully occupied



Working together for higher competitiveness: Marcus Sperber and Markus Rösel from elasto, and Wolfgang Prütting from WITTMANN BATTENFELD Germany (from right to left).

with refilling granulate”, reports Rösel. Simultaneously, valuable human resources were lacking elsewhere, as the shortage of skilled workers has been noticeable for some time now. With the expansion of production, it was therefore necessary to increase automation.

Unlimited choice of colors for batch sizes from 5000 units upwards

The heart of the new production is now a large central material supply system from WITTMANN. “With this central material

The new coupling station still leaves room for further growth.





The granulate is transported inside a closed system. Feedmax Clean material loaders are also used. In this way, dust generation is reliably prevented.

supply system, we have also provided the structural basis for further growth”, Sperber points out. Several large Drymax material dryers are standing on the platform, placed below them are 750-kg containers for the most frequently used materials and colors. Polypropylene makes up the lion’s share. Via a closed pipeline system, the granulate is transported to the coupling station and from there to the individual processing machines. Currently, not all of the coupling points are yet in use – here, too, the equipment has been planned for further growth. Characteristic for elasto is its vast range of different colors. “Batch sizes from 5000 units upwards are available in any color”, says Sperber.

The coordination of material flows with the machines takes place via bar code labels and hand scanners. The M8 control system of the central material supply system automatically checks whether the particular combination fits and only then releases the material transfer. A risk of confusion, such as existed previously, is thus excluded. “The M8 control system was accepted very well by the whole team”, says Rösel. “Following training at WITTMANN, they could all work with it without any problems, although the RFID-controlled granulate supply was a complete novelty for everyone.”

Removal and new start-up accomplished in only two weeks

The WITTMANN subsidiary in Nuremberg with a large training center and application technology center is less than an hour’s drive away. This is an advantage also for servicing. “Whenever we cannot help online, we will come very quickly in person”, emphasizes Wolfgang Prütting, Regional Sales Manager at the WITTMANN Group. “In selecting our suppliers, we have a strong preference for regional partners”, underscores Marcus Sperber. But the decisive incentive for choosing WITTMANN as their supplier of the central material supply system came from visiting a reference customer. “We visited a major manufacturer of electronic components to see how they work with WITTMANN’s system. We spoke with staff members on site and saw that their response was very positive”, Rösel reports. Another confirmation that they had made the right choice came to elasto during the



The M8 control system of the central material supply system met with a very positive response from staff members.

installation of the equipment. The schedule was extremely tight. In just two weeks, the injection molding shop was relocated and the new central material supply system was put into operation. Then production, running at full capacity, started up again.

Regrind processing with thorough dedusting

“The central material supply system has substantially improved our processes”, is the conclusion drawn by Markus Rösel. Color changes are now carried out much faster. Residual material is simply sucked back and no longer lands inside a handheld vacuum cleaner. There are no more scattered granulate grains falling on the floor either. “The extremely clean materials handling increases occupational safety, process reliability and material efficiency”, says Rösel.

The dryer platform provides a view across the material storage area. The space directly under the platform is reserved for containers filled with the most frequently used materials.



Dust generation has been completely eliminated, which is due to the closed pipeline system as well as the Feedmax Clean material loaders with their integrated dedusting function. “The Feedmax Clean reaches extremely high extraction rates of up to 80 per cent of all particles below 1 mm in diameter”, explains Prütting. WITTMANN originally developed the Feedmax Clean to meet the increasing requirements of the circular economy and with the aim of being able to use recycled materials safely also for high-quality applications, thanks to thorough dust extraction.

“For products not certified for direct contact with food, we use regrind more and more often”, says Rösel. In part, this is regrind produced in-house from sprue and scrap parts.

As an example, they point to a “Profi 320” tray, made of recycled polystyrene. The round waiter’s tray with a high rim and a slip-resistant inner surface, on which beer advertising is often shown, is one of elasto’s top sellers. It is produced by two-component injection molding with in-mold labeling (IML).

Down-stream finishing of injection molding products is one of elasto’s main specialties. In addition to IML, the available options include screen print, pad print and digital print. Moreover, items such as drinking bottles and cups are engraved with a name, logo, or other motif.

20 per cent more effective

elasto is the first company on the promotional item market to be ISCC Plus certified and thus furnishing evidence of its generating resource-saving materials and manufacturing ecologically valuable products. In addition to recycled materials, polypropylene produced from agricultural and forestry waste has contributed to the successful certification.

A particularly large contribution to the reduction of greenhouse gases comes from the company’s own photovoltaic

Round waiter’s trays are well-known products from elasto. (all photos: WITTMANN Group)



The CMS includes Drymax material dryers.

system. 1560 solar modules are installed on the new logistics center alone. “On a sunny day, we can operate entirely with energy produced in-house”, Sperber emphasizes.

On 5500 square meters, the new logistics hall offers space for 5000 pallet racks and a storage area for 7000 small parts. The latter contains stores of small injection-molded products which are most frequently in demand, and which elasto also sells via online market places. Products ordered are sent fully automatically by mouse click directly to the person responsible in the shipping department. The latter carries out the final finishing step – for example, engraving – and then packages the products for dispatch. “We can only handle such small individual orders efficiently, because we have optimized and automated our processes also in the logistics department”, Sperber points out. The overall flexibility of production at the corporate headquarters has increased substantially – and this, too, pays off in terms of high competitiveness.

What is the proportion of the efficiency gain contributed by the new central material supply system? – This is not quite so easy to calculate, since the total number of optimization measures is very large. “But we have certainly become about 20 per cent more efficient in granulate feeding”, estimates Rösel.

“The central material supply system definitely helps us to produce competitively”, Marcus Sperber confirms. “We now have the necessary efficiency to make products in Germany, which others buy from Asia.” **smi**

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www.wittmann-group.com

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Both, BOY XS and BOY XXS offer 50% more plasticizing volume

Up to now the maximum plasticizing volume for the machine types mentioned has been 33.2 m³/h, but from the middle of this year the two injection molding machines will have a maximum stroke volume of 15.3 m³ as standard.

An extended screw stroke of a screw diameter of 18 mm and an injection force increased by 35 % makes this possible. Thus, the clamping force / 0.77 m³ (BOY XS) and 0.83 M / 0.89 m³ (BOY XXS) have a significantly wider range of machine volumes in comparison to other

machines in this clamping force class. These two BOY injection molding machines do not use the piston plasticizing that is customary for this machine class, but instead rely on a screw plasticizing from 8 to 18 mm according to the "first in first out" principle. Maximum specific injection pressures of up to 32.28 bar are available.

The proven design is ideally tailored to the industrial requirements of micro injection molding. In order to achieve a maximum concentration of resources, BOY is looking for an almost universal part production



with cost-effective simplicity moulds. The diversity of the plasticizing units allows the processing of bio-based compounds in addition to the common plastics such as thermoplastic (screw diameter 8mm to 18mm), aluminium (screw diameter 16mm) and silicon/USK.

DL Bay
www.dl-bay.de

To focus entirely on hot runner business

Higlas announces the sale of 100% of INVO to Luigi Ciuti, owner of CST Stamp and Rubens Agostini, Sales Director of the Higlas mould division, since 2015.

INVO is the new name of the Higlas mould division that started as INCO in 1987. INCO, focused since the beginning on injection moulds manufacturing for the car lighting market and the glazing technology.

Maurizio Bocca, President and Founder of Higlas, states: "The sale of INVO will allow us to entirely focus on the INHIVE hot runner business, a market that requires continuous innovation and investments in order to satisfy the increasingly demanding needs of the injection-moulding industry".

Luigi Ciuti, CEO of INVO states: "We are proud of this acquisition. INVO has been chosen due to its deep knowledge of the lighting mould market and its high innovation skills in the production of new components for the smart mobility. At the same time the synergies with CST Stamp, both in design and manufacturing, will allow us to be a perfect partner for all the markets that require cutting-edge technology".

The just signed company transfer represents the completion of the process of total separation between the hot runner systems technology division and the lighting mould division.

Higlas
www.higlas.it

WITTMANN and FarragTech now under one roof

For more than 25 years, FarragTech GmbH has been active in plant engineering for plastic processing in the auxiliary equipment sector, with one main focus within its product range on compressed air granulate

From left to right: Eberhard Pies, WITTMANN Material Handling Department Manager, Armin Farag, Product Manager Compressed Air Drying and Heat Cooling, Michael Wittmann, WITTMANN Managing Director.

drying. As the inventor of the compressed air granulate dryer as well as internal compressed air mold cooling for blow molding processes, FarragTech has inevitably been setting benchmarks when it comes to utilizing the benefits inherent in these technologies. Another main focus of the company's product development has been the development of an injection system against contamination for coated molds, in which area FarragTech has created an exceptionally

energy-efficient and low-cost solution.

New product range and the team of FarragTech are being integrated into the structures of the WITTMANN Group. This provides them with direct access from their headquarters in Wetzlar to the entire development know-how and the international sales network of the WITTMANN Group. Further development of the FarragTech products from all three sectors will be driven forward,

and it is planned to have the appliances seamlessly integrated into the open range of WITTMANN 4.0 technology.

The company's previous owner Armin Farag is taking over the compressed air drying and cooling segment as Product Manager, and will incorporate this product line into the WITTMANN Group. WITTMANN Managing Director Michael Wittmann is looking forward to the future cooperation: "We extend a very

cordial welcome to the FarragTech team in our group of companies. With the small quantity dryers from FarragTech, we are closing a gap in our product portfolio. Our international outreach - combined with the advantages of these technically outstanding products - promises an enormous growth potential for our new product segment."

WITTMANN
WITTMANN Gruppe
www.wittmann-group.com

New products for hot runner and control systems

Mitsubishi presents innovations in the field of hot runner and control systems. Under the HFD product brand, the number of variants of the smartFILL nozzle series has been expanded with a new focus. The range is perfectly complemented by the pneumatic and hydraulic operating units for valve gate nozzles. In control systems, the combination of a VCCB controller with the smartFILL in one cabinet has been made possible.

The newly developed series focuses on multi-point and lower maintenance. With the very large variety of nozzle lengths, melt channel diameters and gate geometries, the smartFILL nozzle series is now also available in the large 4507 and the small 4022 versions. The nozzles are available in the variants smartFILL cable seal, smartFILL Shot Covered or smartFILL Shot Single

(single applications). They are not only suitable for processing technical and filled plastic types, but also for direct gating or gating to a cold runner. The new concept of heating right up to the injection point ensures a homogeneous temperature profile, which in turn guarantees highest component quality.

Compact redevelopment. Compatible with the smartFILL nozzle series, the pneumatic (SP 3363) and hydraulic (SM 2455) operating units for valve gate nozzles are now in the range. With the pneumatic operating unit, the gun is opened and closed via the clamping plate using compressed air. From now on, individual actuation of each nozzle, right inside dimensions are possible for both units. This makes these operating units particularly suitable for use in conjunction with the 19 and



Redevelopment of operating units for valve gate nozzles

37 nozzle sizes in the smartFILL series.

All options in one cabinet. Achieves optimum injection-moulding results through sequential control of the melt flow. During the opening or closing of the valve gate, it is possible





Vortex (Recommended)

Two air currents are fed into the build volume from adjacent corners, in a vortex fashion, with the outlets opposite to each respective inlet.



Converging

Two converging air currents meet at the center of the build area, while chamber air is pulled out near the bottom of the build chamber.



Blade

A blade of air is passed across the build volume, at the height of the extruder, exiting the build volume on the opposite side.

- Reduced dimensional stability
- Reduced chemical resistance
- Decreased resistance to hydrolysis
- Increased permeability

Design & Material Limitations

Colder build chambers will also limit what geometries and materials can be printed. Everything from print settings to part design, size, orientation, and placement in build volume will affect regional thermals. As a result, lots of manual tuning and testing will likely be required on a per part basis.

Warping/Cracking and Dimensionally Accuracy Issues

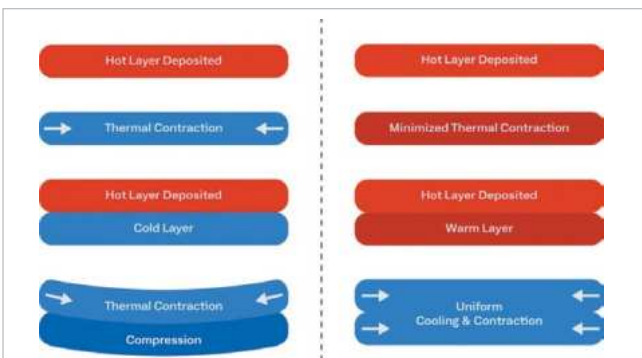
As a polymer is heated in the hotend, expansion occurs. Once extruded, if the chamber temperature is not held within the polymer’s processing window, the printed bead quickly cools and contracts. If a bead’s full contraction is inhibited by the previous layer, printed-in stress occurs, and if it becomes too great delamination and warping occur.

Annealing

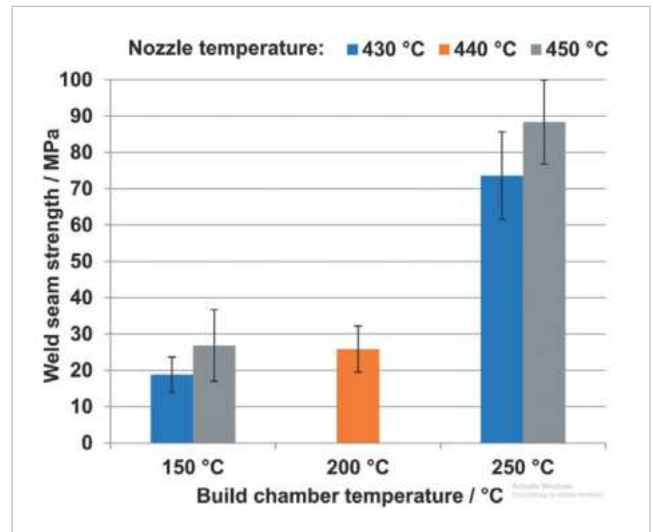
Assuming you’re able to print a part without warping or cracking, annealing is a commonly recommended post-processing step to improve part properties, but there are a few caveats to consider:

- Annealing benefits are mostly limited to semi-crystalline polymers (PA, PAEK, PEEK, PEKK, PP, PPS). For amorphous polymers, like ULTEM™, annealing offers little to no improvement

In the diagram below, you can see how maintaining a high build chamber temperature during the printing process (right), and letting all layers cool together, will result in uniform contraction, resulting in more dimensionally accurate parts.



in mechanical properties.



In a 2019 study at the University of Texas, researchers evaluated the impact of build chamber temperature on interlayer weld strength with unreinforced and carbon-fiber reinforced PEEK. They found that increasing the chamber temperature from 150 °C to 250 °C resulted in up to a 287% increase in Z-direction strength.

- As a part is heated, areas with higher residual stress are likely to shrink more than areas with lower stress, causing the part to deform and warp.
- As printed beads relax, shrinkage is likely to occur in the XY direction, causing dimensional accuracy issues.

Conclusion

PEEK, ULTEM, and other high performance polymers offer metal-like strength/stiffness, continuous use temperatures up to 250°C, and extreme chemical resistance — unlocking a wide range for tooling and end-use additive applications — with many companies recouping their hardware investment in months, not years. While many printers claim they can print these materials, a large portion lack the chamber thermals and convection profiles to print them reliably. **smi**

3D printing with TPE: from experiment to practice

Josef Neuer, Head of Product Management EMEA at KRAIBURG TPE, provides information on the development of 3D printing with thermoplastic elastomers. While this field was initially dominated by “hard TPU,” a wide range of TPE compounds are now suitable for 3D printing thanks to close cooperation between material suppliers and machine manufacturers.

3D printing with TPE

Since 2018, there has been a steady increase in the importance of 3D printing with thermoplastic elastomers (TPE). What initially began as a niche interest has developed over the years into an independent field of application with clear technological requirements, new process solutions, and increasing scientific penetration.

The first inquiries came mainly from manufacturers of 3D printing machines. The tenor was often similar: “Who supplies TPE filaments?” At that time, the focus was particularly on TPU materials with hardnesses above 75 Shore A. These materials were already available as filaments and could be processed relatively well. Accordingly, they shaped the start of this trend.

Limitations of filament-based systems with soft materials

It quickly became apparent that these experiences could not be easily transferred to softer TPE materials. Significant processing challenges were encountered for all six TPE subgroups (TPS, TPU, TPV, TPO, TPC, TPA) in the hardness range below 70 Shore A.

Feed, process stability, and component quality could only be controlled to a limited extent with filament-based systems. The industry intensively searched for alternative processing approaches.

New solution: granule-based 3D printing

Various machine manufacturers began projects in collaboration with TPE material suppliers – the result: granule-based 3D printing systems for TPE that serve a wide range of hardnesses.

The direct use of granulate allows for better control of material-specific



(Photos: KRAIBURG TPE)

properties, and even softer TPE materials, up to the super-soft range, can be processed stably. This optimized processing method opened up new freedoms in terms of material selection and component design.

Focus on 3D printing

The areas of application for TPE in 3D printing are currently mainly in medical technology, sports and leisure, and robotics. The focus is often on individually manufactured components that are customized to the user, as well as components with complex geometries.

Through the targeted combination of shape and material, functions can be integrated directly into the component, which is only possible to a limited extent with conventional manufacturing processes.

In the company’s experience, exciting ideas come from the academic world. Colleges and universities around the world are intensively engaged in 3D printing of elastic materials. In Europe and the USA, KRAIBURG TPE supports various topics and working groups by providing material samples and expert advice.

KRAIBURG TPE works with students and researchers worldwide who are developing new solutions and future

applications. Short development and implementation times, comparatively low investment costs, and a high degree of freedom in material selection and design are leading to a large number of scientific publications.

Another development step is emerging with the use of AI-supported image recognition and image processing. These technologies open up new possibilities, for example in automated component evaluation, process monitoring, or the individualized adaptation of geometries based on digital data.

Conclusion

The development of 3D printing with TPE is therefore not a short-term trend, but a dynamic field of technology that will continue to be characterized by interdisciplinary collaboration. The exchange of expertise on material- and process-related issues remains a central component in further tapping the existing potential of this manufacturing technology. **smi**

The author: Josef Neuer,
Head of Product Management
EMEA KRAIBURG TPE

KRAIBURG TPE
www.kraiburg-tpe.com

exhibitions calendar



CHINAPLAS

21-24 April 2026
Shanghai, China
www.chinaplasonline.com

Chinaplas is the largest plastics and rubber trade fair in Asia and widely recognized by the industry as one of the most influential exhibitions in the world. The rapid development of science and technology has dramatically increased the range of applications of plastics and rubber in various manufacturing sectors, including automobile, electronics, information technology and others.



Equiplast

2-5 June 2026
Barcelona, Spain
www.equiplast.com

Equiplast is a specialized trade fair in the field of plastic manufacturing. It is a meeting ground for manufacturers from Europe and South America. The Equiplast shows innovations of plastic and rubber production. Here innovation and sustainability come together to accelerate the transformation of plastic towards a more circular and sustainable future.



Interplas

2-4 June 2026
Birmingham, UK
www.interplasuk.com

Interplas is the UK's largest plastics exhibition and the only UK event to cover all of the manufacturing processes, technologies and services within the plastics industry. Held triennially Interplas showcases hundreds of exhibitors, the event features a wide range of technologies including injection moulding, rotational moulding, extrusion, blow moulding, thermoforming, vacuum forming, film extrusion, recycling, materials and design.



Plast

09-12 June
Milan, Italy
www.plastonline.org

Plast is an international trade exhibition for the plastics and rubber industry, where interested visitors can get a complete overview of the latest developments in the industry from raw materials to finished products, from machinery to services. Plast will coincide with the exhibitions Ipack-Ima, Grafitalia and Converflex that are dedicated to packaging, graphics and converting.



Fakuma

13-17 October 2026
Friedrichshafen, Germany
www.fakuma-messe.de

The Fakuma is one of the leading trade fairs in the field of plastics processing, which takes place every two years in Friedrichshafen, that provides an ideal event base with its location in the border triangle Switzerland, Austria, Germany. As a meeting place of the industry, the Fakuma has established itself internationally and provides an overview of the entire plastics technology, whether injection molding, extrusion or thermoforming. Here any visitor can receive specific information on all plastics editing and processing relevant processes, machines and tools.



Plastimagen

10-13 November 2026
Mexico city, Mexico
www.plastimagen.com.mx

Plastimagen represents Latin America's plastics sector's most important forum for the exchange of ideas and networking. It is the industry's premier expo in the region, where the world's leading suppliers gather in a single forum to provide key decision makers with state-of-the-art solutions for machinery and equipment, raw Materials, transformation of plastics and plastic products, services for the plastics industry.



Formnext

17-20 November 2026
Frankfurt am Main, Germany
www.formnext.com

Formnext is the leading exhibition and conference dedicated to additive manufacturing and all of its upstream and downstream processes. It is where experts from a wide range of industry sectors, such as automotive, medical technology, electrical engineering, and many more, come together to discover additive manufacturing production technologies for themselves.



Plast Eurasia

2-5 December 2026
Istanbul, Turkey
www.plasteurasia.com

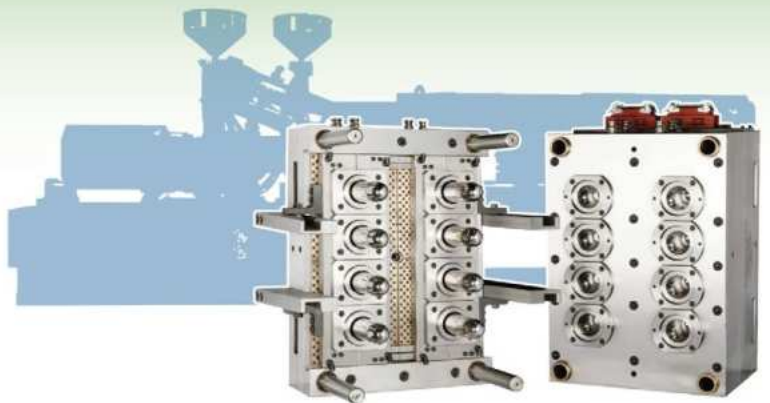
The exhibition areas of the Plast Eurasia include plastic, machinery and equipment, mold making, plastic products, raw materials, packaging technology, hydraulics and pneumatics, as well as related industries and trade journals. International exhibitors can present their latest trends, products and developments to an interested audience here.

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