

One stop shopping - machine and process technology from a single source

Sumitomo (SHI) Demag drives system integration, focuses on sustainability and unveils solutions for modern networking via Industry 4.0.

Schwaig, September 2021 - At Fakuma 2021, Sumitomo (SHI) Demag Plastics Machinery GmbH, Schwaig, will present numerous new products showcasing itself as a competent machine partner and innovative and sustainable innovation driver.

All-electric injection moulding machines for LSR, IMD, medical and packaging applications

The trade fair presentation will be supported by three all-electric injection moulding machines from the IntElect series, plus one from the company's EI-Exis SP packaging range.

An IntElect 130/520-450, including an LSR package, showcases state-of-the-art elastomer injection moulding integrated with the Servomix Z200 metering system from partner Nexus Elastomer Systems GmbH, Eberstallzell (Austria). For its inaugural presentation to the global trade audience, the LSR exhibit will demonstrate the production of a freeform automotive axial seal. "16 cavities, burr-free, no conversion," succinctly states Henrik Langwald, Director Automotive & Electronics.

An IntElect 220/660-1100, equipped with a special plasticising unit for processing crystal-clear multilayer PC, demonstrates all of the IMD advantages in a single, seamless process. Automating the production of emblems for automotive exterior applications, the IMD decoration process involves back-injecting a second surface using a single image followed by contactless cleaning in a laminar flow box. "This ISO Class 7 cleanroom and fully automated process corresponds well with our new 'handle&place' concept," explains Langwald.

Corroborating the company's digitalisation and interface competence is a fully automated and highly efficient production cell for technical medical parts. The exhibit focuses on the IntElect S 100/460-250 with an automation system from Waldorf Technik GmbH, Engen, based on the German partner's patented Vario Tip FSS system. "The uncompromising design of this trade exhibit showcases the production of medical parts and caps for insulin syringes, on a 16-cavity mould in a total cycle time of around six seconds", reports Anatol Sattel, Director Medical.

Once again, an EI-Exis SP 250 proves its high-speed capabilities manufacturing a cup application. The hybrid machine for packaging impressively demonstrates high speed, user-friendliness and durability. "Opening and closing sides are the fastest on the market," reports Arnaud Nombrot, Director Packaging.

“The origins of the short cycle times and 1,000 mm/s injection speeds can be attributed to the hydraulic accumulator. As a result, processors can produce even thinner and lighter packaging items, resulting in a significant reduction in raw material requirements, packaging waste and shipping costs.”

Permanent condition monitoring of machine status

Another booth highlight is the inaugural launch of a series of permanent machine status condition monitoring systems. Reducing maintenance costs while maintaining reliability, they can be used to determine the actual degree of wear and tear, enabling early detection and optimal maintenance planning towards the end of the service life of the injection moulding machine. Utilising condition monitoring, complex processes can be reliably analysed directly on the machine. Making it possible to monitor critical parameters, which typically requires considerable effort and resources.

“At Fakuma 2021, we will present three options that can be implemented across all series,” reports Dr. Thorsten Thümen, Senior Director Technology. “The first option helps to keep all-electric machines permanently energy-efficient and powerful. Another serves to optimise hydraulic machine oil parameters and maintain component quality. The third reliably monitors control voltage across the entire injection moulding machine series,” he explains.

New slogan "Act! Sustainably": Sumitomo (SHI) Demag commits fully to sustainability

At Fakuma 2021, Sumitomo (SHI) Demag draws special attention to the ecological progress being made within the production landscape. A new slogan “Act! "Sustainably", to which the company is totally committed and underpins all future innovations, will be communicated across the booth. Firmly integrated into the company’s corporate and CSR mission statement, only machines and equipment that contribute to this sustainability statement will be showcased.

Futureproof Industry 4.0 networking tools and web-based software

Meeting all future networking and communication requirements in the context of Industry 4.0, all of the company’s robots and machines are now completely aligned to the OPC/UA control, monitoring and integration interface. Additionally, Sumitomo (SHI) Demag presents its advanced web-based software solution *myConnect*. This central platform gives customers direct access to a wide range of fully networked support services. Additionally, the *myConnect* system helps to enhance the management of inefficiencies, reduce costs, improve total cost of ownership, troubleshoot errors and minimise downtime.

ABS opaque onyx shell made in collaboration with Sepro

In another interesting display, long-standing automation partner Sepro Robotique will produce an onyx-style shell on an all-electric IntElect 130/520-450 injection moulding machine. Using a tool created by Polar-Form Werkzeugbau GmbH, Lahr, the two tone black and white translucent layered mineral will be

convincingly replicated in ABS. An innovative application of this intricacy requires a moulding machine of the highest performance, maximum dynamics, greatest precision with an excellent energy balance, supported by Sepro's equally optimised automation platform.

Images/captions:



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Sumitomo (SHI) Demag Plastics Machinery GmbH

Sumitomo (SHI) Demag has shaped the development of the plastics industry from its very beginning. As a specialist for injection moulding machines for plastics processing, Sumitomo (SHI) Demag and its Japanese parent company are leading the industry.

The global development and production network of Sumitomo Heavy Industries and Sumitomo (SHI) Demag is comprised of four facilities in Japan, Germany and China with more than 3,000 employees. The product portfolio includes all-electric, hydraulic and hybrid injection moulding machines with clamping forces of between 180 and 15.000 kN. With more than 125,000 installed machines, Sumitomo (SHI) Demag is present in important global markets and ranks among the largest manufacturers of injection moulding machines in the world.

At Sumitomo's headquarters in Chiba, Japan, the company manufactures machines with clamping forces in the small to medium range. Nearly 95 % of all delivered machines are equipped with an all-electric drive concept. Sumitomo (SHI) Demag's German facilities in Schwaig and Wiehe produce the Systec Servo range with hybrid drive as well as the EI-Exis SP and Systec SP range of high-speed, high-performance machines. The all-electric IntElect range for international customers is also being produced in Germany.

As early as 1998, Sumitomo (SHI) Demag set up its first production site in Ningbo/China. In 2015, the Chinese subsidiary Demag Plastics Machinery (Ningbo) Co., Ltd. installed a new facility with a 13,000 m² floor space. It is earmarked for the production of the Systec C range with clamping forces of between 500 and 10,000 kN for the Asian market.

In addition to injection moulding machines, Sumitomo (SHI) Demag offers customised and standardised systems for the part handling automation, technical and process solutions for special applications, tailored services and service concepts as well as a range of financial options to support investment in injection moulding machines.

With its comprehensive sales and service network of subsidiaries and agencies, Sumitomo (SHI) Demag is present in all major markets.