

Deals sealed at Swiss Plastics Expo due to impressive exhibit

An impressive production cell demonstration at Swiss Plastics Expo 2023, featuring Sumitomo (SHI) Demag all-electric moulding machines represented by MAPAG Maschinen AG in Switzerland, attracted a good footfall and lots of fascination.

Lucerne – January 2023. As Swiss Plastics Expo 2023 drew to a close, Peter Kirst, CEO of MAPAG Maschinen AG, Bern, representing Sumitomo (SHI) Demag in Switzerland, and product manager Urs Kocher, reflect on the positive outlook. Kirst suggests that although the number of visitors to the stand appeared level with pre-pandemic, the number of substantive discussions and emerging projects provided an optimistic market picture. "Despite the current macroeconomic uncertainties, including the Ukraine war, disrupted supply chains, energy challenges and inflation, visitors were upbeat and positive about the future. There seemed little hesitation or restraint, especially on Wednesday," explains Kirst.

Predominantly attracting visitors from Austria, Switzerland and neighbouring regions, including southern Germany and Vorarlberg, the CEO also noted a strong contingent of interested parties travelling to the show from France. "Representing the entire plastics processing chain and drawing an international crowd, this year's Asian delegation was more restrained. Topics repeatedly discussed at our booth mirrored points of particular interest to the Swiss market. Namely energy efficiency, precision and cleanliness - all features characterised by the Sumitomo (SHI) Demag all-electric moulding machine series," observed Kirst.

Presenting the new high speed IntElect S 75 ton machine, Sumitomo (SHI) Demag also showcased its in-house automation prowess, presenting its handle&place SAM-C robot contained inside the production cell. Collaborating with Maxon Motor AG, visitors witnessed the moulding of a critical component used in sterile high precision motor drives. The likes of which have been deployed by NASA robots to collect soil samples on Mars.

These drives, which Maxon supplied the exhibit tooling for, are specifically designed for medical applications, including human implants, insulin pumps, surgical robots, respirators, ventilators and more. To avoid microbiological contamination, the motor, gearbox and encoder must all be produced in a sterile environment and meet the stringent ISO class 8 cleanroom and GMPc certified standards.

Given the cleanliness priority, the IntElect S 75 ton offers a fully configured, compact all-electric injection moulding machine. Yet also offers the precision required to produce complex and fine structures, including applications with micro tolerances. "The integrated all-electric direct drive enables clean room production,

delivering optimum repeatable accuracy without process fluctuations," emphasises Kirst. One of the key processing advantages these electric drives is the ability to control the linear axis with velocities in excess of 500mm/s. With no belts spinning, the drives don't have to work as hard. And therefore consume considerably less energy.

"Combined with the space-saving SAM-C robot, a protective housing and conveyor belt, the exhibit perfectly illustrated the interaction between machine and removal robot within a single cell," adds Kirst.

To demonstrate the energy and economic efficiency of the production cell, an exciting live comparison was carried out at the booth. Placing a kettle next to the IntElect S, energy consumption was measured for both. The injection moulding machine averaged 1.4 kW/h, while the household appliance required 2.3 kW/h. Additionally, visitors dropping by the digital space on the booth received an insight into Sumitomo (SHI) Demag's myAssist software project. This software contributes to better process transparency and precise tracking, which in turn increases efficiency and productivity. Explaining the benefits of the digital solution, the expert adds: "This can all help to reduce component scrap to a minimum and deliver higher machine availability long term."

Additionally, bfa solutions ltd showcased for the third time its sustainable and scalable solutions at the Lucerne booth. With MAPAG Maschinen AG, the two companies have successfully partnered up on joint projects, assisting customers to obtain, visualise and evaluate accurate data generated from their production system.

Marking 30 years in partnership

This year, Sumitomo (SHI) Demag and MAPAG Maschinen AG celebrates its 30th anniversary in partnership together. The agency, active in Switzerland and the Principality of Liechtenstein since April 1993, has helped to establish Sumitomo (SHI) Demag as a recognisable industry- brand and one of the leading injection moulding machine suppliers in Switzerland. The figures and market conditions are testament to the agency's success domestically.

"With the IntElect, for example, we currently hold the largest share of all-electric injection moulding machines on the local market," reflects Kirst. His company currently serves more than 50 customers, who combined run more than 650 injection moulding machines supplied by the Japanese-German machine manufacturer.

MAPAG is a distribution and service company for capital goods operating within the pharmaceutical, chemical, food, cosmetics, plastics and packaging industries. Its workforce of approximately 20 employees are split into specialist teams, comprising internal sales, field and service support. Customers served by

MAPAG include large corporations and medium-sized companies from the automotive, packaging, medical, micro and precision technology industries. MAPAG also provides a responsive technical injection moulding support service, extending to automation, maintenance support and machine qualification.

Image/caption:

Capture:



Sumitomo (SHI) Demag booth at this year's Swiss Plastics Expo in Lucerne.

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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 3,100 employees. The product portfolio includes all-electric, hydraulic and hybrid injection moulding machines with clamping forces of between 500 and 15.000 kN. With more than 159,000 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.