

## Press release

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Sumitomo (SHI) Demag at the Fakuma 2009:

### **Shaping the future with pooled vigour**



Hall B1, Stand 1105

At the Fakuma 2009, Sumitomo (SHI) Demag Plastics Machinery GmbH will present sophisticated applications from the fields of electrical engineering, automotive engineering, and packaging. "Shaping the future with pooled vigour", this is the challenge the Japanese/German manufacturer of injection moulding machines with its European headquarters in Schwaig near Nuremberg, Germany, has set to accept through the use of German mechanical engineering contributed by Demag and pioneering direct drive technology contributed by Sumitomo. Not least because our future will depend on the responsible use and consumption of energy, energy efficiency of machines is one of the key topics of this trade-fair appearance.

In the view of Sumitomo (SHI) Demag, energy efficiency cannot merely be a matter of a single machine, but should rather encompass the whole product range. All the more, this comes down to perfecting the various procedural steps of injection moulding and their engineering implementation. At the Fakuma, Sumitomo (SHI) Demag in cooperation with Siemens will demonstrate how this strategic goal can be pursued. For the first time, not only will the energy consumption of the injection moulding machine per se be measured and analyzed, but also any major load of the peripheral devices or automation units will be analyzed and visualized. It is only this holistic approach that allows to take the next and decisive step

towards cutting energy costs, viz. active energy management.

Another culmination of this trade-fair appearance will be the all-electric IntElect range with its configuration levels of 'Performance' and 'Smart'. In place of this range, Sumitomo (SHI) Demag will have an IntElect 160/520-680 of the "Smart" configuration level on display at Lake Constance. This package features the drive technology developed by Sumitomo, specifically tailored to injection moulding machines, and built in-house with energy-efficient direct drives. Whereas specifically low-inertia air-cooled drives are used in the IntElect Smart, the IntElect Performance rather uses water-cooled direct drives. In combination with the direct ejector, it is thus specifically suited for use in clean room environments.

With this all-electric machine philosophy, Sumitomo (SHI) Demag perfectly meets the requirements of the producers of mass-produced precision mouldings. Thus, these machines come with direct drives on all main axes. As opposed to indirect electrical drives, such as drives with a synchronous motor plus belt drive, direct drives have a higher energetic efficiency and provide enhanced precision, higher repeatability or cycle time benefits through their higher capacity of reaction. On the "Smart" configuration level, the IntElect is available with clamping forces of 500, 1,000 or 1,600 kN.

The all-hydraulic machines of the Systec range feature rugged and compact design that provides ample space for large moulds. The standard linear slide of the mobile platen guarantees high precision of the clamping movement and thus considerably reduces mould wear. Moreover, completely autonomous control of each axis provides even enhanced precision in these machines which are available with clamping forces from 250 kN through 20,000 kN.

At the Fakuma, Sumitomo (SHI) Demag will demonstrate the production of decorative strips for an interior door moulding by means of the IMD method on a Systec 350-2300 with a two-tier clean room module above the mould space and a sophisticated automation system. Here, unloading including sprue separation, component cleaning and the part tray are integrated in the machining cell. Finally, the issue of energy efficiency will be discussed in detail on this system. To this end, the energy consumption of the machine per se as well as of any relevant peripheral devices or automation units will be measured and displayed.

The hybrid high-speed machines of the EL-Exis range are predestined for the production of caps and closures, and thin-walled packaging. This is where these are benchmarking machines in terms of high productive capacity combined with low energy consumption. Owing to the hybrid drive concept with energy recovery in parallel mode, this machine requires up to forty percent (40 %) less energy as compared to other similar high-speed machines. At the Fakuma, this will be demonstrated by means of an EL-Exis 150/500-610 with an IML application and a four-fold cup mould. This highly flexible system also requires little retooling effort only.

The European injection moulding machines made by Sumitomo (SHI) Demag consistently build upon one and the same platform such that basic innovation and well-established solutions are available across all machine ranges. Here, customers may choose from three types of drives, viz. all-electric, hybrid, or hydraulic. The comprehensive equipment and options catalogue covers all models plus the modular automation package.

#### Company profile

Sumitomo (SHI) Demag has strongly shaped the plastics industry from the very beginning. Being a specialist for injection moulding machines for polymer processing, Sumitomo (SHI) Demag and its Japanese parent company are among the global leaders in this sector.

At production sites in Germany, the United States, Japan and China, more than 3,000 employees produce and sell a comprehensive product range of all-electric, hybrid or hydraulic injection moulding machines with clamping forces ranging from 180 kN through 20,000 kN. With a dense sales and after-sales service network, Sumitomo (SHI) Demag is well represented in all industrial regions all over the globe.

In addition to injection moulding machines, Sumitomo (SHI) Demag offers its global customers competent solutions for their specific performance requirements. This would include, among others, financing schemes, technology or process development including complete automation packages or custom-tailored servicing concepts.

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