

Press release

17 October 2013

Sumitomo (SHI) Demag at the K 2013

“Think green – act blue!” a sustainable basis for continuity and a trusting partnership

“Think green – act blue!” is the Sumitomo (SHI) Demag motto at this year’s K trade fair in Düsseldorf. Here, “Blue” symbolises the self-image of the company: All the dealings are based unreservedly on environmental reasoning, always with consideration of the newest technological developments and with a view of the associated global effects.

The Sumitomo (SHI) Demag portfolio of products and services is oriented towards efficient and economic solutions. These are realised with energy-efficient products, equipped with environmental and resource-saving technologies, as well as with a focus on global production, marketing and service as a trusting customer partner. The aim of every further development is always to increase production efficiency and at the same time to reduce energy consumption. Thus, Sumitomo (SHI) Demag has set itself the target of continuously reducing the fleet consumption, generated by the machines and technologies in the day-to-day production of the firm, by 30 % by 2016 when compared with the standard of today.

With “Blue Technolution”, Sumitomo (SHI) Demag is labelling its own system solutions, which are capable of achieving these ambitious targets. In this scenario, efficient, high-dynamic and high-precision fully electric and hybrid-powered injection moulding machines will constantly increase in significance in the future. On this path to continuous improvement, the Japanese-German injection moulding machine manufacturer is presenting the current state-of-the-art, both in machines and process technology, at this year’s K trade fair. Here, system solutions are presented for packaging injection moulding, as well as precision injection moulding with customised applications in the telecommunication and automotive industries and medical technology.

Partner of the sustainability initiative “Blue Competence” of VDMA

Sustainability is vital when designing a future worth living. With the sustainability initiative “Blue Competence”, the German Engineering Association (Verband Deutscher Maschinen- und Anlagenbau e.V., VDMA) wants to respond to this. The building blocks of this Blue Competence are the technologies and processes of machine and plant construction, which, for example, require minimum energy at maximum productivity, conserve raw materials, reduce emissions to a minimum or sustainably improve the quality of life of the people. These are the aims promoted by Sumitomo (SHI) Demag in the framework of the “Blue Technolution” products.

At the K trade fair, right in Düsseldorf city centre, the VDMA is planning a public campaign presentation with, for example, the manufacture of a largely well-known toy: a Playmobil horse in the symbolic blue colour. In doing so, the difference in the production efficiency of plastic articles today and 20 years ago will be clearly shown. At the same time, particular focus will be placed on aspects, such as resource conservation, energy consumption and recycling. In addition to the toy manufacturer and Sumitomo (SHI) Demag, the partners in the project are three further injection moulding machine manufacturers.

One aim that the VDMA has formulated with regard to its Blue Competence initiative states: In comparison with the technology used today, the energy consumption should be reduced by at least 20 % by 2020. In injection moulding manufacture, this ambitious target cannot be reached simply by continuous replacement of old plant with the newest, energy-efficient machine technology, as is currently taking place. Targeted optimisation of existing installations must also contribute to this.

As a member of the Allianz Blue Competence, Sumitomo (SHI) Demag also offers efficient retrofit concepts for the optimisation of existing installations. This will be clearly demonstrated during the supplier production of the reins for the “Blue Horse” in Düsseldorf Old Town - injection moulded with a final weight of 1.2 g in a double mould for Playmobil on an Ergotech 50/370-200 injection moulding machine, constructed in 2004. This production demonstrates how, using customised components, an older existing machine can also be upgraded to reduce its energy requirement and at the same time achieve high production efficiency.

Improve production and energy efficiency of existing machines by retrofitting

On the K-trade fair stand, the Sumitomo (SHI) Demag customer service demonstrates the possibilities for retrofitting, using the latest technology building blocks with an Ergotech 50/370-200, dating from the year 2004. The retrofit solution smartDrive, which can be used for machines with NC4 and NC5 control, results in a huge step forward towards greater energy efficiency of hydraulic machines. The retrofitted RPM-controlled pump drive smartDrive does not only improve the degree of efficiency, but also leads to energy savings within the region of up to 40 %. This effect is achieved through intelligent regulation of the revolutions per minute of the pump, always adapted to the current situation in the cycle. The smartDrive additionally improves the service interval of the hydraulic oil, reduces the necessary cooling output and lowers the machine noise emission.

A further highlight is the presentation of the latest control technology NC5 plus on the retrofit machine, as an upgrade for the previous NC4. With this, the advantages of NC5 plus can be used for process optimisation, remote control and cycle time reduction in older machine series. Further advantages can immediately be seen in the machine, such as the use of the latest USB technology for mould data saving.

Retrofitting NC4 machines with a CompactFlash-module, which is easily done using Plug-and-Play, enables connection to modern storage technology, replacing the often still present disc drives. Constructed for heavy-duty use, the CompactFlash-cards can be used with any PC; the data can be saved with only a few clicks of the mouse. Present mould discs are also quickly converted using a conversion program and transferred to CompactFlash.

The NC4-NC5-plus upgrade and the energy-saving solution smartDrive were developed in the Sumitomo (SHI) Demag department Support & Engineering. This area within customer services deals with the installation and construction of retrofits for existing machines and robots, the technical support for specialised customer requirements and the development of new retrofitting solutions.

Reliable stocktaking

The service modules ErgoCheck and EnergyCheck by Sumitomo (SHI) Demag create a solid basis for decisions regarding optimisation of the production capacity of existing machines. During the ErgoCheck, the machine passes through an extensive inspection, during which all process relevant parameters and all basic and safety functions are thoroughly checked. It is

possible to select whether this check is carried out in regular intervals or as an individual event, and this is documented with a test certificate.

Together with the energy check, the customer receives precise stocktaking of the energy usage of his injection moulding machine, which is split up into the separate areas, such as pump, engine, heating, or peripheral equipment. This reliably traces potential for energy saving, which allows energy-efficient design of the production, and also leads, ultimately, to reduced costs for parts.

Sumitomo (SHI) Demag Plastics Machinery GmbH

Sumitomo (SHI) Demag has consistently shaped the plastics industry from its inception. As a specialist for injection moulding machines for polymer processing, Sumitomo (SHI) Demag and its Japanese parent company are among the leading companies in this sector globally. The Japanese-German company was formed in the spring of 2008 by merging the injection moulding activities of Sumitomo Heavy Industries (SHI) and those of Demag Plastics Group.

The global development and production network of Sumitomo Heavy Industries and Sumitomo (SHI) Demag consists of four plants in Japan, Germany and China with more than 3,000 employees. The product portfolio encompasses all-electric, hydraulic and hybrid injection moulding machines with clamping forces of between 180 and 20,000 kN. With over 100,000 machines installed, Sumitomo (SHI) Demag is present in all important markets throughout the world.

With more than 5,000 machines sold each year, the Plastics Machinery Business of Sumitomo Heavy Industries counts as one of the largest Global manufacturer of injection moulding machines.

The main Sumitomo plant in Chiba produces machines with low and medium clamping forces. Around 95 % of all machines supplied by Japan have an all-electric drive.

The main Demag facility in Schwaig/Germany focuses on the hydraulic Systec and the hybrid high performance, high-speed EI-Exis SP machines. Recognising the increasing importance of electric drive technology for injection moulding machines, Sumitomo (SHI) Demag has expanded the factory in Wiehe/Germany into an international centre of competence for electric machines. Thanks to the new production capacities, Wiehe now supplies all electric injection moulding machines worldwide with its IntElect series with clamping forces up to 4,500 kN and also the hydraulic Systec series with clamping forces of up to 1,200 kN.

Sumitomo (SHI) Demag continues to operate the former Demag plant in Ningbo/China which has been active since 1998. Since 2007 the subsidiary located there, Demag Plastics Machinery (Ningbo) Co., Ltd, had its own, newly built plant and after reaching full capacity, moved to a larger factory with a production area of 11,000 sqm. Injection moulding machines from the Systec C product line with clamping forces of between 500 and 10,000 kN are produced here for Asian markets.

In addition to injection moulding machines, Sumitomo (SHI) Demag offers customised and standardised systems for the automated handling of moulded parts, technical solutions for special applications in process engineering, tailor-made service concepts and various forms of financing for investments in injection moulding machines.

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

www.sumitomo-shi-demag.eu

Contact

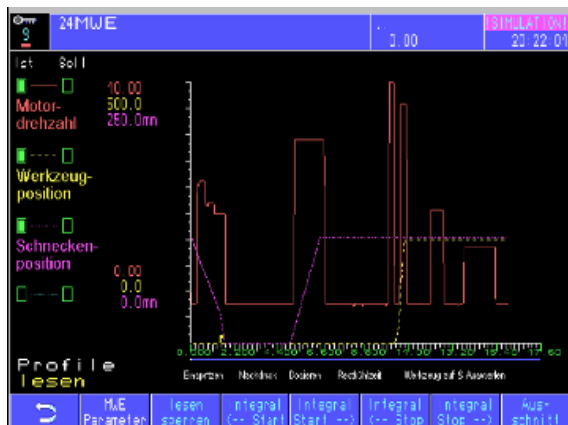
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<System_50_blue_horse>



The “Blue Horse”, manufactured in the Düsseldorf Old Town as a public campaign of the “Blue Competence” initiative of the VDMA.

<smartDrive_all_axes>



smartDrive automatically adjusts the speed of the hydraulic pump drive to the cycle requirements, corresponding to the particular user settings. For each cycle sequence, makes available only the power required by the machine. Over longer stand-by and partial load phases, there is a proportionally higher energy saving.

Photos: Sumitomo (SHI) Demag