

Press Release

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Sumitomo (SHI) Demag at the 2009 Fakuma Fair:

Systemec – Saves Energy and Drives Down Resource Utilisation

Hall B1, Stand 1105

Their solid and compact design and the great space for large moulds are the distinguishing characteristics of the hydraulic injection moulding machines of the Systemec series in the European range of products of Sumitomo (SHI) Demag Plastics Machinery GmbH. This Japanese-German manufacturer of injection moulding machines with its European headquarters in Schwaig near the Bavarian city of Nuremberg is unveiling a Systemec 350-2300 at the Fakuma fair in a production cell for manufacturing decorative strips for the inside door lining. This machine is equipped with the new speed-regulated activeDrive pump drive that save as much as 45% energy depending upon the cycle. Another detail of its equipment is a filter radiator system to extend the oil changing intervals from previously 25,000 to 40,000 hours.

These completely hydraulic machines of the Systemec series from Sumitomo (SHI) Demag have a solid and compact design that offers a lot of space for large moulds. Its series linear guide for the moving platen guarantees highly precise clamping movements to greatly reduce mould wear and tear and friction losses. Beyond this, the complete and independent regulation of each individual axle is another plus for the precision of these machines that have clamping forces of 250-20,000

kN. At the Fakuma fair, Sumitomo (SHI) Demag demonstrates manufacturing decorative strips for the inside door lining using the IMD process on a Systec 350-2300 with a two-part cleanroom module over the mould cavity including intricate automation. The extraction is also integrated in the production cell with sprue separation, a station for cleaning component parts and place to store parts. They also use this system to explicate energy efficiency in detail together with Siemens while measuring and displaying the machine's energy consumption and all relevant peripheral and automation equipment.

Sumitomo (SHI) Demag is of the opinion that energy efficiency is not just a question of one specific machine and has to include the entire range of products because a holistic analysis is the only way to set up proactive energy management. This is the reason why it is important to perfect each of the steps involved in injection moulding and its technical implementation.

Sumitomo (SHI) Demag has now come up with an interesting option for the Systec machines with its speed-regulated activeDrive pump drive. activeDrive automatically adapts the main drive's motor speed to the cycle requirements to provide the output actually needed and nothing more. You can save as much as 45% energy depending upon the cycle without having an impact on the process or quality.

Energy-saving mode is activated with the machine control system. The system automatically analyses the cycle wherever it is on and the machine then switches into energy-saving mode. Needless to say, the machines can also be operated as much as you want when en-

ergy-saving mode is off. This system is built upon the existing drive system so that it can also be retrofitted. Sumitomo (SHI) Demag is now featuring activeDrive for Systec series machines ranging from 210-420 t of clamping force.

The impact that oil quality has on the economic and energy-efficient operation of a hydraulic injection moulding machine is often underestimated. But both clean oil and optimum oil temperature have a beneficial effect on production, not to mention the low level of wear and tear on the whole system. Sumitomo (SHI) Demag has engineered a new filter radiator system to improve the oil service life. An added hydraulic cycle is installed on a series production basis on all Systec machines where an additional vane-type pump continually pumps the oil over a superfine filter and a tube bundle radiator. This added hydraulic cycle works independent of the other main pressure cycles. The pulsation-free laminar flow of oil also functions during the cycle-related change-over times which contributes to optimum dirt screening. In connection with the superfine filter, this boosts the oil service life previously 25,000 to 40,000 hours while oil cooling in the interruptions allows higher cooling water forward feed temperatures.

The production cell is built with Max Petek Reinraumtechnik, Radolfzell for the cleanroom module; Motoman Robotec GmbH, Allershausen, Germany as the supplier of the six-axis robot; Kist Maschinenbau GmbH, Dresden, Germany for the brushing station, MAi GmbH & Co. KG, Küps, Germany a specialist in automation solutions, Leonhard Kurz Stiftung & Co. KG, Fürth, Germany for the IMD foil and the forward feed unit and HBW-

Gubesch Kunststoff-Engineering GmbH, Markt Erlbach,
Germany for the mould.

Corporate Profile

Sumitomo (SHI) Demag has been the driving force in developments in the plastics sector from the beginning. As a specialist in injection moulding machines for plastics processing, Sumitomo (SHI) Demag, along with its Japanese parent company, is among the global leaders in the sector.

More than 3,000 employees develop, manufacture and sell products ranging from completely electrical, hybrid and hydraulic injection moulding machines in clamping force classes ranging from 180-20,000 kN at locations in Germany, Japan and China. Sumitomo (SHI) Demag has a complete sales and service network to be found in all industrial regions of the world,

Sumitomo (SHI) Demag not only offers its customers injection moulding machines, but also expert solutions for their specific needs all over the world. That ranges from financing, technology and process development including one-stop shopping automation systems right down to customised service strategies.

www.sumitomo-shi-demag.eu

press contact

Sebastian Reuter
Marketing Manager PR
Tel. +49 (0)911 5061-550
Fax +49 (0)911 5061-750
E-Mail: sebastian.reuter@dpg.com