Press Release
October 28, 2010

The demand for high performing hydraulic injection moulding machines continues

Sumitomo (SHI) Demag to expand its Systec series for clamping forces up to 20,000 kN

Being a fully controlled, hydraulic all-purpose machine, the Systec injection moulding machine made by Sumitomo (SHI) Demag Plastics Machinery GmbH of Schwaig/Germany is used to produce a variety of plastic items for the most varied sectors. So far, this modular machine has been available with 17 clamping forces ranging from 350 kN to 10,000 kN. As there are quite a few customers with specific interests in larger clamping forces being provided by a toggle joint clamping unit machine, the Systec series will be expanded by a model with a clamping force of 13,000 kN by late 2010, and by more frame sizes up to 20,000 kN in 2011.

All frame sizes of the Systec series are available in three configuration levels, viz. Basis, Smart or Performance. From one level to the next, the Systec offers increased performance, enhanced dynamics and additional parallel functions. Users can thus choose whichever level matches best their requirements and moulded parts. Up to a clamping force of 1,200 kN, the Systec comes with an all-hydraulic clamping unit, from a clamping force of 1,300 kN, it comes with a toggle joint clamping unit.

The oil cooling and filter concept of 'activeCool+Clean'

Systematic enhancements on the drives and valves of the hydraulic system now facilitate parallel machine movements and provide even more dynamics. Various optimization efforts on components relevant to precision as well as the filter or oil cooling concept of 'activeCool+Clean' will enhance the machine's availability and efficiency. The 'activeCool+Clean' feature will increase the service life of the oil, facilitate temperature control within tighter tolerances, reduce wear or noise, provide for longer maintenance or servicing intervals, thus cutting down on maintenance costs.

Systec multi – a step towards multi-component technology

Through the adaption of optional additional injection units from the Demag modular system, this machine can be fitted for multi-component technology as the Systec multi variant.

The machine for the Chinese market: Systec C

At the China based production facility in Ningbo, Sumitomo (SHI) Demag produces the Systec C machine with clamping forces of 500 and 8,000 kN respectively for the Chinese market, based on the global platform.

On display at the K 2010: Systec multi

At the K 2010, the hydraulic Systec will be on display as the multi-component machine Systec multi 210-430h/80r with a clamping force of 2,100 kN. The horizontal main injection unit of the 430 frame size provides the PC/ABS blend Bayblend T65 from Bayer MaterialScience, the second injection unit of the 80frame size in a piggyback position above the horizontal unit provides transparent ABS Terlux 2802 by BASF.

The IMD-Multi-K process on display is a tradeshow novelty. It facilitates the cost-effective, reproducible and safe production of parts with an appealing look such as for the interior of cars. Mouldings combining two different decors are produced in an integrated production process in merely one injection mould with two workstations. This mould technology was developed by HBW-Gubesch Kunststoff-Engineering GmbH, patent pending. Both cavities of a mould with two workstations are each equipped with one unit for in-mould decoration (IMD) and with various IMD design foils by Leonhard Kurz Stiftung & Co. KG. The first station is served with decor A by the main injection unit, the second one is served with decor B by the ancillary unit.

The first cavity forms an ashtray cover and provides the same with a basic decor. After the preform has been transferred to the second cavity by means of a 6-axis robot by Kuka Roboter GmbH, another decor is applied to the surface while overpacking on the rear integrates additional functions. The integrated manufacturing cell including conveyor belt, brushing station and production under cleanroom conditions of class 10,000 offers high levels of flexibility in terms of change of decors, and an excellent cost-benefit ratio.

By means of a second decor applied through IMD, basic decors can be upgraded such as with frames of chrome look finish or logos. Thus, expensive day & night designs can be

provided for vehicle interior compartments, consumer goods or consumer electronics. The IMD technology offers high levels of process reliability, high-end impression of the moulded parts, and minimizes risks that would occur if the alternative positioning of separate decors was used instead.

Systec 160 at the exhibition stand of Sepro Robotique

A Systec 160 will be on display at the exhibition stand of Sepro Robotique in Hall 10, Stand D59, in a complex machining cell. This Systec 160-600 will be seen producing fibre optics made of PMMA in a mould by HBW Gubesch in the IMD method.

Systec 130 at the exhibition stand of Ceracon

Another Systec will be on display in a complex machining cell at the exhibition stand of CeraCon GmbH in Hall 11, Stand G04 + G06. This Systec 130-600 will be seen producing a doorstop made of PP in the S-FIT method. This moulding will be produced in one single cycle, and fitted with a sealing lip made of one-component PUR foam.

In addition to the Systec multi 210 by Sumitomo (SHI) Demag a Systec 160 with an integrated SDR robot will be on display at the K 2010 at the stand of Sepro Robotique in Hall 10, Stand D59, and a Systec 130 will be on display at the stand of CeraCon in Hall 11, Stand G04.

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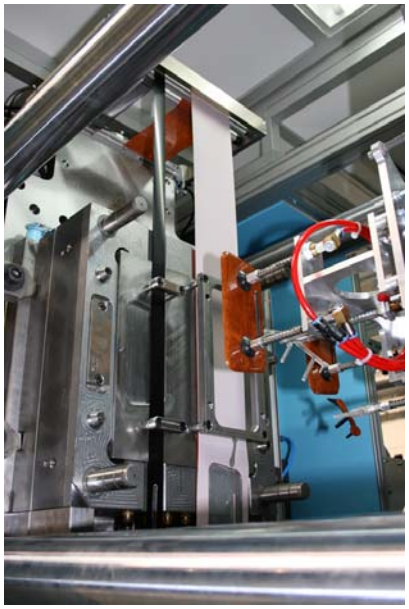
Multi-component machine Systec multi 210-430h/80r with a clamping force of 2,100 kN and equipped for the IMD-Multi-K process by HBW-Gubesch for the production of two-component moulded parts with two different decors.
Photograph: Sumitomo (SHI) Demag

<IMD_Multi_K_Systec_multi_1>



With the IMD-Multi-K process by HBW-Gubesch, the six-axis robot unloads the finished part from the second station (on the left) and relocates the preform with the first decor (on the right) from the first station to the second station.
Photograph: Sumitomo (SHI) Demag

<IMD_Multi_K_Systec_multi_2>

View of the clamping side of the mould of a Systec multi 210-430h/80r with the two IMD feeding devices by Kurz for the basic decor (on the right) and the additional second decor (on the left).
Photograph: Sumitomo (SHI) Demag

<ashtray-cover_Systec_multi>

Ashtray cover made of PC/ABS and transparent ABS, in the IMD-Multi-K process on a multi-component machine Systec multi 210-430h/80r in two stations, and provided with a basic decor and another decor.
Photograph: Sumitomo (SHI) Demag

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