

02. October 2019

Maplan: Increased efficiency with injection intelligence

The Austrian rubber injection moulding machine manufacturer Maplan will focus on ways in which to upgrade existing systems in addition to their newly structured range of innovative machines. Both focal points are aimed at offering users economically interesting ways to increase their competitiveness at a time of economic uncertainty. This encompasses options such as affordably exchanging machine control systems, upgrading automation equipment and energy consumption displays.

The central area of the Maplan stand will be dedicated to display and demonstrate a wide range of control and monitoring equipment, such as the upgraded version of the current **C600.web** control system with the classification X6, which can be used to upgrade machines which use the 4th generation of control systems and above (= from year of construction 1995) in only three working days, thus allowing them to be connected to the internet or the company network. Retrofitting consumption meters for power, air, and water to provide a basis for the introduction of cost-cutting measures is also possible.



The hydraulic horizontal machine Rapid* 700D/300 combined with a compacting device for processing HTV silicone and a servo-electrically driven double brush system for automatic part demoulding. (Source: Maplan)

Horizontal machine for mass production

One of the two exhibited machines is representing the newly updated horizontal machine Rapid * series, which will be available after K 2019 in clamping force ranges of 2,000 to 4,000 kN. The machine on display is the Rapid+ 700 dual/300 (3,000 kN clamping force) with the energy-saving Map.cooldrive servo drive for the hydraulic system. On the injecting side, it features a 725 cm³ Map.fifo injection unit with an injection pressure of up to 2,300 bar. A compacting device with hydraulic locking system is included for the HTV silicone feed to the injection unit. Elastic crown corks bottle caps are produced with a 16-cavity cold runner mould by OR.P. Stampi s.r.l. The nozzles are individually controllable, meaning their filling properties can thus be adapted individually or in clusters, as necessary. For this specific model, the demoulding function in the mould is performed by a stripper plate. In order to be able to demonstrate various demoulding methods, the machine is also equipped with a servo-electrically driven double brush device.

Fully automated vertical production cell

The second machine which is being exhibited is a hydraulic vertical machine closing from below from the new **Ergo**⁺ series, which comes in four clamping force ranges up to 4,000 kN. It is complemented by the **Ergomax**⁺ model series which follows in three sizes up to clamping forces of 9,000 kN. In addition to the standard plate size, each clamping force size of both type series also features a model with enlarged heating platens. The common feature of all Ergo+ machines is the design of the clamping unit, which has been optimised for a minimum operating height, so that as a rule there is no need to add walk-on platforms or install the machines in foundation pits.

An **Ergo**⁺ **6000/400** with a clamping force of 4,000 kN will be featured on the stand. It comes equipped with a 6,000 cm³ **Map.fifo ergonomic** unit with an injection pressure of 2,000 bar. The machine functions as an automated production cell when combined with an industrial robot, which takes on the task of manipulating the cavity plates between the machine and a demoulding and reworking station. The multifunctional smartphone holder which will be made with an eight-fold mould of **AS-Zerspanungstechnik GmbH** in combination with an eight-cavity cold runner model from **Peta Formenbau GmbH** and inscribed or labelled with a laser from **Bluhm Systeme GmbH** after demoulding in a reworking station from **WEAsystec GmbH**.

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