

## CHINAPLAS 2016: ARBURG TO EXHIBIT COMPLETE PLASTIC PARTS PRODUCTION RANGE

- **Injection moulding: Electric Allrounder produces pill splitters in high volumes**
- **Additive manufacturing: Freeformer for prototyping a medical technology article**
- **IML application: High-speed "Packaging" version of the hybrid Allrounder**

*Lossburg. Arburg will be presenting the complete range of plastic parts production - from one-off parts through to high-volume production - at the Chinaplas 2016, to be held from 25 to 28 April 2016 in Shanghai. At Stand E1G01 in Hall E1, a Freeformer will demonstrate the efficient additive manufacture of design samples and prototypes based on the example of a "pill splitter". The same product will be manufactured in high volumes on an electric injection moulding machine. A high-speed IML thin-walled application will also be on show: a "Packaging" version of a hybrid Allrounder will produce four IML containers in a cycle time of around 3.2 seconds.*

"As one of the world's key showcases for the plastics industry, the Chinaplas is extremely important to us. Arburg is growing in the Chinese market because ever more injection moulding companies are demanding top-quality machines, which is why they are placing their trust in our high-end technology and the extensive expertise of our staff," says Zhao Tong, Managing Director of the Arburg organisations in China. "Working in cooperation with Chinese partners, one of the applications we are showing this year is a high-performance hybrid machine that produces IML tubs for the packaging sector. We are also demonstrating the production of pill splitters – both in a high-volume application with an electric Allrounder and in an additive manufacturing solution for small batches using the Freeformer. Arburg is the only company able to achieve this."

### **Packaging industry: "Packaging" Allrounder**

Arburg will present a "Packaging" version of a hybrid Allrounder specially designed for thin-walled applications in the packaging industry at the Chinaplas 2016. This high-speed, high-performance injection moulding machine from the Hidrive series offers high productivity while at the same time reducing energy requirements.

A 2+2-cavity stack mould will be used in the IML application. Compared to a conventional 4-cavity mould, the stack mould technology allows smaller-sized machines to be used: the hybrid Allrounder 570 H with a clamping force of 1,800 kN produces four 200 ml IML butter boxes in a cycle time of around 3.2 seconds. Automation is handled by a two-axis robotic system. This inserts two so-called butterfly labels on the fixed and moving mould platen and removes the finished parts from the centre block.

## **Electric Allrounders for efficient high-volume production**

An electric Allrounder will be used to produce pill splitters for medical use made from PC on an 8-cavity mould in Shanghai. The cycle time is around 25 seconds and the part weigh is 18 grams. Thanks to its great precision and speed, as well as its low emissions, the electric injection moulding machine is ideally suited to the production of medical technology articles. A Multilift Select robotic system from Arburg is used for demoulding.

## **Freeformer for prototypes and functional components**

At the Chinaplas 2016, a Freeformer will also produce pill splitters for medical technology use from PC – not in large volumes, like the Allrounder, but in small unit volumes without a mould. Once the supporting structures have been removed in a water bath, the two-piece articulated part can be used as a design prototype or for functional tests, for example. This means that expensive aluminium moulds can be dispensed with and new products can reach series maturity much faster.

Using the Arburg Plastic Freeforming (APF) process, the Freeformer additively manufactures functional parts on the basis of 3D CAD data. It processes inexpensive, qualified plastic granulates and is equipped with two stationary discharge units as standard. This enables the Freeformer to process an additional component in order, for example, to manufacture a part in different colours, with special tactile qualities or as a hard/soft combination. Alternatively, it can be used to build structures from a water-soluble support material, enabling complex part geometries to be realized.

