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Engel puts focus on energy efficiency at Chinaplas

For the Austrian machinery supplier Engel the focus at Chinaplas will be completely on energy efficiency. With its five exhibits the injection moulding machine maker and automation expert will be presenting turn-key solutions for highly economic manufacturing.

Engel site in Shanghai

Up to 70 % energy savings
The Engel duo 5550/700 injection moulding machine which will be producing engine covers on a mould by Mecaplast comes from the Shanghai plant of the Austrian company. The machine is equipped with the servohydraulic Engel ecodrive. The ecodrive is available as an option for all hydraulic machines in the product programme, comprises a servomotor with fixed displacement, or variable capacity pump, instead of a permanently running asynchronous motor. The machine's speed is directly linked to the drive speed. When it is at standstill, for example during the cooling phase, the machine does not consume any power.

Engel says that the machine consumes up to 70 % less energy than comparable, conventional hydraulic machines. On top of this, the ecodrive reduces cooling water consumption at the oil cooler to a minimum, in many cases even to zero.

The duo machine presented at Chinaplas will comprise a complete production cell including automation with a linear robot of the viper 40 type.

Maximum precision with standard machine technology
The Engel victory 1050/160 is also equipped with ecodrive. The machine will be demonstrating a medical application where energy efficiency and maximum precision are the key requirements. Cylinders for 2-ml syringes will be produced using a thin-wall technology and a 32-cavity mould by Swiss mould maker Schöttli. Substantial reduction of the wall thickness compared with legacy syringes guarantees considerable improvements in material use and to cycle times. The material used here is medical grade PP by Borealis from Linz/Austria.

Engel duo 700

More productivity thanks to larger mould fixing platens
At Chinaplas, Engel will be producing LED leadframes on an insert 80V/60 type machine; this application has been demonstrated alreadyat Koplas in Korea last year. The 60 ton clamping force insert machine was built at the company's production works for small to mid-range machines in Pyungtaek City, Korea, and was specially modified to fulfil the requirements for leadframe manufacturing. The machine's mould fixing platens were enlarged to accommodate moulds with more cavities. This trade fair exhibit will be working with a 256-cavity mould by Woosung Hitech, Euiwang City, Kyounggi-do, Korea. The cycle time of this application is 10 seconds.

Fully electric at a reasonable price
Representing the fully electric machines, an e-max 200/100 will be producing seal rings from liquid silicone at Chinaplas. The machine has been fitted with an LSR dosing unit by Elmet for this application and uses raw materials supplied by partner Dow Corning.

A second e-max machine will be on display at the booth of partner Max Robot, Yuyao City, Zhejiang, China. The machine will be producing mobile phone shells in thin-wall technology with an insert-placing part.

"The investment climate in China is very good at this year's Chinaplas", emphasises Gero Willmeroth, Sales Director with Engel Machinery (Shanghai) Co., Ltd. in the run up to the fair. "In May, we can look forward to launching numerous new projects in Guangzhou. The attendance figures at Chinaplas will continue to increase."

Before the end of the year, Engel will be doubling the capacity of its large-scale machine production works in Shanghai to an

annual output of 200 machines in order to cope with increasing demand from China, but also from South-East Asia and India.

Engel will be exhibit at booth J 41 in Hall 4.1.

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