



Press release



Sustainable success thanks to energy-efficient injection moulding

Energise your Future – ENGEL at FAKUMA 2008

Schwertberg / Austria: July 2008 – With a motto of “Energise your future” the Austrian manufacturer of injection moulding machines, ENGEL, is exhibiting at FAKUMA Friedrichshafen from 14 to 18 October. Energy optimised, powerful machine designs are the focus of this year’s trade fair presentation: the highlight is the new ENGEL duo 500 pico – a compact variant of the tried-and-trusted ENGEL duo large scale machine series. Besides this ENGEL will be presenting three fully electric machines and the ENGEL e-victory hybrid machine.

With raw material prices continuing to rise, and environmental issues on the increase, the need for energy efficient designs in mechanical engineering is becoming increasingly urgent. Sustainably energy efficient, but powerful – this is the path that ENGEL has followed for years. The latest machine developments provide impressive evidence of this. At FAKUMA 2008 the world market leader will be presenting five machine designs that more than meet this goal. 340 square metres of floor space provide the backdrop for a thoroughly green demonstration of machine capabilities – and this does not just mean the colour of the machines.

Compact power house

The most important innovation from a machine-technology point of view is the newly developed, compact ENGEL duo 500 pico. Maximum power on a small footprint This is what ENGEL duo machines have represented for years. The ENGEL duo 500 pico brings the tried-and-trusted strengths of the large scale machines to the 500 ton clamping force class. The machine’s minimal footprint and low weight, thanks to a compact dual-platen



clamping system, mean maximum energy efficiency, and very short dry cycle time of just 2.6 seconds. The duo 500 pico is thus the fastest dual platen machine on the market – despite its comparatively low energy requirements. At FAKUMA, ENGEL will be demonstrating a typical teletronics application. Using a duo 3550/500, ENGEL will be demonstrating the production of a front frame for a 20” monitor, which is supplied to electronics companies by Hungarian Jasz Plasztik.

Further highlights with this machine: The duo 500 pico is equipped with a robot from the new ENGEL Linear series. With a weight-optimised but still extremely stable mechanical basis the new drive technology means dynamic action despite a very compact design. On top of this, a new I/O and BUS system guarantee minimal response and communications times.

Pure energy efficiency– the ENGEL e-max

Fully-electric, compact and extremely favourable, but still equipped with the critical options that help customers optimise injection moulding. This is the new ENGEL e-max. Exhibited for the first time at K 2007, the machine offers both a comparatively small footprint due to its highly integrated drive and control technology, and maximum precision and process reliability. On top of this, the ENGEL e-max comes with a central power supply for the servo drives including recovery of braking energy. The benefits: Again maximum energy efficiency. An ENGEL e-max 310/100 with a clamping force of 100 tons will be demonstrating the production of an electronic component using a mould by Möller/Schrems (A).

Highly versatile – the ENGEL e-motion

For more than 10 years, electrical injection moulding machines have been part of the ENGEL range. And success speaks for itself. Servomotor-based drive technology offers an extraordinary level of precision despite low energy overheads. The ENGEL e-motion machines are not just highly economical when deployed in the manufacturing of standard components, but also guarantee low emission levels and efficiency in high speed applications. The result is a machine that sustainably saves resources with best-of-breed



cycle times and easy controls thanks to the new ENGEL CC 200 control unit. ENGEL is showing two applications to demonstrate the versatility of the ENGEL e-motion machines:

An ENGEL e-motion 740/180 with a clamping force of 180 tons will demonstrate that fully electric machines are perfectly suited for deployment in injection moulding for the packaging industry. High-precision parallel movements – thanks to independently actuating electrical motors – mean that the machine is perfectly suited to fast high speed applications. The exhibit is equipped with an ENGEL speedy ERS 21 fast take-off, linear robot that moves in from one side. This series guarantees maximum flexibility and dynamic action. In combination with ENGEL zero time communications, this means shortest possible mould pause time without restricting the machine.

Manufacturing of COC vaccine receptacles using a mould by Köbelin/Eichstetten (D) on an ENGEL e-motion 200/55 demonstrates a further field of application for fully electric machines. The mould is designed for sterile production in a clean room for deployment in medical technology. Optimised for clean room applications, the machine has an encapsulated barrel that helps optimise particulate and heat emissions, along with encapsulated injection unit drives and clean room capable, corrosion resistant mould mounting platens with clean room plating. On top of this, an oil return unit on the toggle lever guarantees an excellent clean look, while additionally minimising particulate emissions. The e-motion 200/55 is fitted with a Stäubli TX40 articulated arm robot located within the machine's safeguarding to provide a highly compact production cell.

ENGEL e victory

Just like the ENGEL e-motion the tiebar-less ENGEL e-victory with its electrically driven injection unit and tried-and-trusted ENGEL victory clamping unit offers substantial energy saving potential. The ENGEL e-victory is your best choice if you need compatibility with an existing range of moulds, efficient mould changing and easy automation capabilities. On top of this, the machine is perfectly suited for energy-saving production using moulds with hydraulic core-pulls and/or hot runner nozzles. At FAKUMA, this flexibility will be demonstrated on an ENGEL e-victory 310/120 producing dual branch fittings. The mould is by IFW/Micheldorf (A).



All told, this year's FAKUMA gives ENGEL a perfect backdrop to demonstrate high-performance energy optimisation and improved efficiency: and five exhibits that combine sustainable resource savings, no matter whether in injection moulding for the packaging, medical technology or electronics industries provide ample proof.

ENGEL at FAKUMA 2008 in Friedrichshafen: Hall A5 Booth 5204

Photos:



Fig 1: The new ENGEL duo 500 pico.



Fig 2: The ENGEL e-max



Fig 3: Dual branch fitting manufactured on an ENGEL e-victory 310/120

ENGEL Austria GmbH

The ENGEL brand denotes the world's biggest manufacturer of injection moulding machines and, at the same time, one of the world's leading plastics processing machine manufacturers. Today, the ENGEL Group offers its customers a single source for a full range of plastics processing technology modules for: Injection moulding machines for thermoplastics and elastomers, and automation, with the assurance that individual components are also competitive and successful in the world markets. With eight production plants in Europe, North America and Asia (China, Korea), subsidiaries and representatives in over 85 countries, ENGEL offers its customers the optimal global support they need to compete and succeed with new technologies and leading-edge production systems.

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