



Increased energy efficiency: ENGEL e-victory with ecodrive

York, Pa. – August 24, 2010 – ENGEL North America will exhibit a solution for increased energy efficiency at the upcoming MD&M 2010 show in Minneapolis, MN. On display will be an ecodrive equipped, 30 ton ENGEL e-victory hybrid tie bar-less machine, molding an LSR application.

ENGEL North America, a world leader in the design and manufacture of injection molding machines and parts-handling automation, will exhibit a hybrid tie bar-less injection molding machine – the ENGEL e-victory 80/30 US -- running a 4-cavity LSR mold with automatic part removal. The ENGEL e-victory machine series is characterized by a high-precision, servo-electrical injection unit and a tie bar-less, hydraulic clamping unit. With the addition of the new ecodrive, this machine has become as energy efficient as an all-electric machine.

ENGEL's ecodrive is an innovative drive system based on servomotors that control the drive speed independently of the speed required for the machine. In other words, the drive is only active during machine movements, with energy consumption dropping to virtually zero when the machine is idle.

Benefits of the ecodrive are particularly great when it comes to the tie bar-less ENGEL victory and e-victory machines. In contrast to standard hydraulics with asynchronous



drives, ecodrive does not consume flushing or idle energy when the machine is not in motion. Legacy hydraulic drives continuously pump the hydraulic oil through the system.

Besides the increased energy consumption due to constant motor/pump activity, the cooling water requirements of standard systems are also higher because the hydraulic oil is heated by the constant movement. Heating of hydraulic oil in particular is a key indicator of energy efficiency. With ecodrive, some ENGEL victory machines will no longer need oil cooling. The use of ecodrive also offers the benefits of low heat impact thereby keeping heat-related air turbulence to a minimum. This makes the machine perfect for cleanroom applications.

Using all-electric injection units along with servo-hydraulics has an additional positive effect on the energy household, as no energy is consumed while the hydraulics are idle, which leads to vastly improved energy utilization. In addition to this, clamping pressure lock-in, a standard feature, improves ecodrive's efficiency. This means that the clamping pressure is locked into the sealed hydraulic clamping system by means of a non-return valve. This removes the need to consume energy to maintain clamping pressure.

In total, the use of ecodrive with ENGEL victory machines can save up to 70 percent of energy consumption compared with standard hydraulics, providing savings similar to comparable fully electric machines.

Additionally, the machine is perfectly suited for energy-saving production using molds with hydraulic components (such as core-pulls).



For the MD&M Minneapolis show, an ENGEL e-victory press, equipped with an 18mm screw, will be running a 4 cavity, cold-runner interface seal mold with a cycle time of 20 seconds. Both mold and material feeding system are being supplied by ELMET GmbH.

For more information, e-mail sales@engelglobal.com, or visit www.engelglobal.com/na.

ENGEL North America

From facilities in the United States, Canada and Mexico, ENGEL North America provides its customers a single source for design and manufacture of injection molding machines for thermoplastics and elastomers, a full range of plastics processing technology modules and a full scope of automation solutions. With eight production plants in Europe, North America and Asia (China, Korea), subsidiaries in 17 countries and representatives in over 70 countries, ENGEL North America provides its customers the global support they need to compete and succeed with new technologies and leading-edge production systems. For more information, visit www.engelglobal.com/na.

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Press release



ENGEL's e-victory press will be running a 4 cavity, cold-runner interface seal mold with a cycle time of 20 seconds at the MD&M Minneapolis show, October 13-14, 2010.