



At the end of the awards ceremony, CEO Dr. Peter Neumann (at left, next to the three members of the awards committee) invited the winners of the HL Awards onto the stage. The awards honor special solutions based on injection molding machines with a tiebarless clamping unit (photo: Engel)

A Breath of Fresh Air in the Crisis

Engel Symposium. It was almost possible to gain the impression that all was normal: the 2,000 visitors attending the Engel Symposium 09 experienced a high-class event with intense discussions about the future of injection molding technology. In truth, however, the ongoing recession has also had a serious impact on Engel Austria GmbH. By offering special arrangements and new products, the machine manufacturer hopes to entice its customers to invest in new equipment and reverse the current trend.

After the recent boom years, the impact of the current recession on injection molding machine manufacturers has been quite severe; this much is known. How severe is illustrated by a few figures that were presented by Dr. Peter Neumann, CEO of Engel Holding GmbH, in his opening speech at the 2009 symposium organized by the Austrian in-

jection molding machine manufacturer. According to current projections, the worldwide market for injection molding machines will drop from the 91,000 units shipped in 2007 to 39,000 this year. In spite of the noteworthy increase in sales by almost 25 % in the first half of its 2008/09 fiscal year, Engel was not able to match the previous year's record revenue of EUR 622 million. Nevertheless, the company will have to be satisfied with its annual sales of about EUR 591 million as of March 31, especially since this satis-

faction will be short-lived. For the current fiscal year, the company's management expects a decline of 30 %, i.e. sales of EUR 400 million at best.

Dramatic Situation in a Sector Used to Success

In a press conference, Neumann described the sudden downturn that started in the autumn of 2008 as having a magnitude and dynamic that was unprecedented in the history of the industry. At

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the same time, he left no doubt about the strength of the family-operated company. This could be seen from the fact that, in the midst of a massive drop in demand in injection molding machinery industry, Engel was able to increase its share of the markets in Europe (27 %), Asia (4 %) and North America (11 %) in the 2008 calendar year. With growth of 4 %, Engel improved its leadership position in the European market significantly. Among other reasons for this success, Neumann mentioned the successful launch of the Engel “duo pico” line and the all-electric e-max series. Nevertheless, he could not avoid characterizing the current situation of “an industry used to success” as “dramatic”. Sales in almost all areas – around the world and in all branches with the exception of medical technology – have simply collapsed. The most likely recovery would appear to be expected in the telecommunications and electronics sectors, which are driven by consumer demand.

Neumann does not anticipate that the volume of past years will be achieved again even in the medium term. The company has already responded to the current drop in orders through introduction of shorter working hours and agreements to end employment; 400 employees are now in a labor foundation (staff support company) or on unpaid leave for further training, and further adjustment of the number of personnel is unavoidable. “Anyone who believes that they do not need to respond to this situation and adjust capacity is definitely on the wrong track”, according to Engel’s CEO.

Engel is addressing the difficulties presented by the current market situation with three concepts that are intended to entice customers to invest in equipment once again. In addition to offering models that may be leased around the world

and financing directly through Engel, the Austrian company is offering until further notice an additional scrapping incentive in the amount of EUR 3,010, if the user of an outdated machine purchases a new Engel machine as a replacement. According to Christian Pum, CSO of Engel Holding, 25 processors have made use of this option to date. Furthermore, on the 20th anniversary of the tiebarless injection molding machine and after selling over 50,000 units in the “victory” Series, Engel is introducing the “victory spex” (“space extended”) as a special series in the most commonly used clamping force range of 280 to 4,000 kN and with only the most commonly purchased options. The resultant improved cost structure in production translates into an attractive price/performance ratio for customers.

Innovative Applications of Tiebarless Machine Receive Awards

Tiebarless machines were also the dominant topic during the gala evening between the two days of the symposium, which was held at the Linz Design Center. Three companies from Germany that use injection molding machines with a tiebarless clamping unit in production for an advanced technical solution and to provide a clear economic benefit over conventional machines received the HL Award in gold, silver and bronze. An independent committee selected the winners from among a total of 27 entries submitted from eight countries.

First place was awarded to Braun GmbH, Walldürn, Germany. The company, a member of the Procter & Gamble group, won on the basis of a project for manufacturing a watertight housing for the Silk Epil 7000 epilator. The mold

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for the 3-component part is correspondingly large and complex. The highlight of the application is placement of the finished parts from the 4-station rotary table directly in front of the machine operator – this simplifies evaluation of molded part quality, especially during startup, but requires molded part removal from the side. Since there are no tiebars in the way, no gimmicks are required. Full utilization of the available mold space is a further benefit, permitting use of a smaller machine.

Second place went to Oechsler AG, Ansbach, Germany. A tiebarless Engel victory 180 with four injection units is an essential component of its system for manufacturing automobile key enclosures based on a concept patented by Oechsler. This machine represented the best compromise in terms of available clamping space and clamping force for the highly complex 4-component mold. The same concept based on a clamping unit with tiebars would have required a larger machine.

Mekutec GmbH & Co KG, Albstadt, Germany, took third place with a system concept that exploited the unobstructed lateral axis to the tiebarless clamping unit of an Engel e-victory 310/120 for production of plug-in sensors used on air mass flow sensors. On the one hand, the system concept makes it possible to keep the length of the part handling robot’s beam short, thus achieving the precision necessary for placing the sensitive metal contacts, while at the same time keeping the equipment height low.

In addition to the trophy winners, Engel recognized places four through six – in the following order: Eifler Kunststoff-Technik GmbH & Co. KG, Bielefeld, Germany; Leicht+Müller Syscotec GmbH + Co KG, Remchingen, Germany; Kramski North America, Largo, Florida, USA – with certificates of merit.



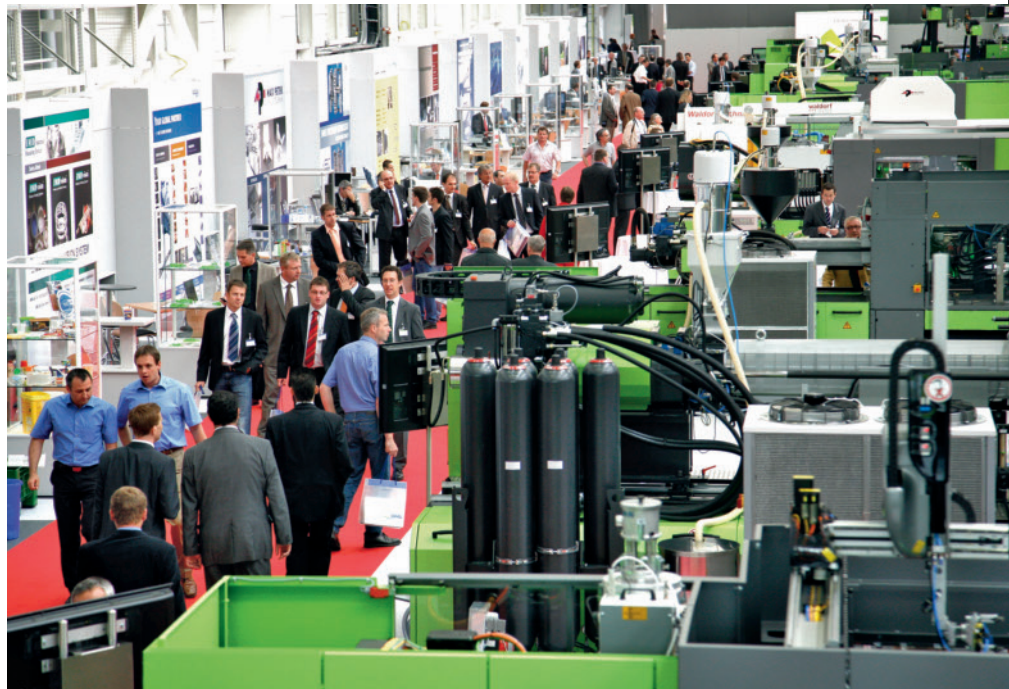
In the Clearmelt process, the substrate component is overmolded with transparent PU. In this case, a keypad with an electrical circuit is incorporated under the 0.5 mm thick overmolded layer. The keypad may be operated by gently touching the surface with a fingertip

(photo: Wolf)

Tomorrow's Ideas

As with the HL Awards, the ideas of innovation and close contact with the customer characterized the Engel Symposium as a whole: how can the economics of injection molding as a production process be improved while simultaneously minimizing energy consumption? Where will future developments in the plastics industry open up new opportunities? Answers to these questions were the focus of the events held on May 27 and 28 at the plant for large injection molding machines in St. Valentin, Austria (in this regard, please see our interview on the following pages).

In keeping with the motto "close to the customer, open to innovation", the Austrians presented a cross-section of their product lines to the approximately 2,000 attendees: 17 solutions from the five main areas of automotive, packaging, telecommunications/electronics, medical technology and technical parts with a focus on



The exhibition included 17 solutions from five major branches of industry that gave rise to lively discussions about potential applications and the potential for improved productivity (photo: Engel)



On the 20th anniversary of the tiebarless injection molding machine, Engel introduced the "victory spex" Series. The attractively priced special models are available only with selected standard options

(photo: Engel)

high productivity and energy efficiency – from the compact all-electric machine to large machines for challenging multi-component applications, from fast-cycling and material-saving production of very thin-walled syringe barrels on an e-motion to production of soft touch instrument panel sections by means of the Dolphin process on an Engel duo combi M.

The new "duo pico" model was an eye-catcher, with its energy-saving "ecodrive" power system based on variable-speed pumps that use the optimal operating point for each motion. In addition, the machine features an electric screw drive that operates during recovery when the hydraulic drive is switched off. According to CTO Dr. Hans Wobbe, compared to

machines from competitors, a "duo pico" uses 25 % less energy. With the "ecodrive" option, energy consumption can be reduced even further. In terms of energy efficiency and economy, this concept already approaches the levels of an all-electric machine. A system with an "ecodrive" produced a 20" video screen bezel at the symposium.

Engel also generated a great deal of interest with the Clearmelt process for overmolding a thermoplastic substrate with a glass-clear protective coating. Using a shuttle mold, a lining for the automotive interior was produced with a scratch-resistant, high-gloss surface with the aid of a PU system (supplier: Hennecke GmbH) employing a mixing head to overmold a transparent polyurethane onto the PC+ABS preshot in the second station. To demonstrate possible applications, a component that incorporated a keypad for electronic operation prior to overmolding with PU was also exhibited. There is thus room for tomorrow's ideas even in difficult times. ■

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