



Search



The Global Plastics Magazine


[Contact Us](#) | [Infotag](#) | [Subscribe](#)

RESOURCES

- [Advanced Search](#)
- [Conference/Tradeshows](#)
- [2008 Media Kit](#)

[Subscribe Here](#)

CONTENTS

- [Find a Supplier](#)
- [Cover Story](#)
- [Feature Story](#)
- [Web-Exclusives](#)
- [Editorial](#)
- [First Look](#)
- [Market Update](#)
- [Tech Trends](#)
- [Notables](#)
- [Economy & Markets](#)
- [World Tour](#)
- [Material Thoughts](#)
- [Product Watch](#)
- [NPE Corner](#)
- [K Corner](#)
- [K Daily Archives](#)
- [As I See It](#)
- [Spotlight](#)
- [E-Weekly](#)
- [Modern Executive](#)
- [Encyclopedia Articles](#)

[Subscribe to e-Weekly](#)

Our Other Sites



- [Contact Us](#)
- [Front Page](#)
- [Master Index](#)

SEARCH

E-Weekly

Aug 21st, 2008

[Print this article](#)
[Back to the section](#)

Fakuma injection molding preview: Pre-fair news from Arburg, Engel, Netstal, Wittmann Battenfeld, Fanuc, Ferromatik Milacron, Negri Bossi/Sacmi Group, Trexel, and Windsor/JSW

By Modern Plastics Editorial Staff

[Front Page](#)

Neither wild nor crazy, Fakuma worthwhile for injection molders

Pre-YouTube, back when comedians sold albums (33 rpm) of their skits, Steve Martin performed a routine on 'how to be a millionaire (and never pay taxes)'. His advice? "First, get a million dollars." Fast forward to the present, with e-newsletters such as ours (though not as good-Ed.) filling e-mail inboxes the world over, and here some new advice to get rich quick and avoid those taxes.

It will take some chutzpah, but every time you hear the words "energy savings" at the Fakuma (www.fakuma-messe.de) trade show, ask for euro 0.10. If you stay for the full event, scheduled for October 14-18 in Friedrichshafen, Germany, on the North Shore of Lake Constance, by show's end you'll be sure to leave with enough change to cause the ferry taking you across the water to Switzerland (that private bank account to help avoid those taxes) to list severely—so be sure to sit near the center of the boat.

Because it's a tough event to get a room for, and because it's a tough one to negotiate without some German language ability, most **MPW** readers probably won't attend Fakuma. That's a pity because the show flat-out offers the most concentrated look available at top injection molding machinery. With that in mind, here is a preview of some of the equipment we expect to see there. We'll be there in force, with a full report later this year in our e-Weekly newsletter (in case you're not yet a subscriber: subscribe for free at www.modplas.com/newsletter) and in our December issue.

These highlights, plucked from the news we received prior to the show, are here in alphabetic order. This week we'll speak only to injection molding machinery suppliers; next week's e-Weekly will include a preview of auxiliary equipment, robots/automation, materials and more. Also next week, we'll report on KraussMaffei (www.kraussmaffei.com); on August 21 the firm will unveil a new all-electric machine at its Munich HQ, with **MPW** in attendance there. Below the Fakuma pre-show reports on Arburg, Engel, Netstal, Wittmann Battenfeld, Fanuc, Ferromatik Milacron, Negri Bossi/Sacmi Group, Trexel, and Windsor/JSW.

The Plastics Web@

GO!

Powered by:



All-around energy efficiency/b>

Energy efficient injection molding and robotic systems are in the spotlight at the Arburg stand (Hall A3, Stand 3101). The Lossburg, Germany-based injection molding machine manufacturer (www.arburg.com) has designated "Energy Efficiency Allround" as an important corporate objective in 2008. The company describes its approach to optimizing energy consumption as holistic, as it works to spare the energy used in manufacturing of the machines as well as ensuring these use little energy during their lifetimes.



The company also provides processors extensive individual consulting for process optimization. Here, notes Arburg, it is not only essential to minimize power and water consumption, or heat dissipation into the environment, but also to optimize production capacity utilization and ensure high injection molding quality with a minimum reject rate.

During the Fakuma show, four machines at the company's stand will bear its "e²" energy efficiency label: two of the electric Allrounder A series and two hydraulic Allrounder S series machines with electromechanical dosage drive.

On the packaging front, Arburg will run an Allrounder 570 A with a clamping force of 2000 kN, creating six inmold labeled yogurt cups per cycle in 4-second cycles. The second Allrounder A, a 630 s model, will run a 48-cavity bottle-cap mold.

Arburg's largest press, its Allrounder 920 S with a clamping force of 5000 kN and a size 4600 injection unit, will run an application some might recall from its debut at the K show last year: a patented folding crate from Ifco Systems. The crate will be produced in a single cycle, removed by a robotic system, and subsequently assembled automatically. The smallest press in the S series, the Allrounder 170 S with a clamping force of 150 kN and a size 30 injection unit, also will be displayed, featuring a 12-mm screw and processing micro gear wheels.

A show highlight, as it was at the firm's open house in early spring 2008, will be a vertical Allrounder 375 V with a clamping force of 500 kN. This machine will mold profiles using the Exjection process developed by Austria's IB Steiner (www.ibsteiner.com). Finally, an Allrounder 570 S with a clamping force of 2200 kN will also be presented for the first time at the fair. This is the new machine size of the hydraulic Allrounder S machine series, which was first introduced at K 2007. Molded will be a bulk molding compound (BMC) insulating rail for an iron. The finished parts are removed and subsequently processed fully automatically by a six-axis robot from Kuka (www.kuka.com).

Save on energy, not on power/b>

Austrian injection molding machine manufacturer Engel (Schwertberg; www.engelglobal.com; Hall A5, Stand 5204) attends Fakuma under the motto "energize your future," with its intent to prove that energy savings and powerful machinery are not incompatible. Besides three fully electric machines and the e-victory hybrid machine, the manufacturer says its highlight will be the new duo 500 pico – a compact (500-tonne clamp force) variant of the established series of large-machine duo's.

With a dry cycle time just 2.6 seconds, Engel claims the pico is the fastest dual-platen machine on the market. At Fakuma one of these will be running a front frame for a 20-inch monitor on a mold from Jasz Plasztik (Jaszbereny, Hungary; www.jasz-plastik.hu) on a duo 3550/500. The duo 500 pico is equipped with a robot from Engel's new Linear series. Over the course of the next year, the machine range will be expanded to include units with clamp forces of 600 and 700 tonnes.

An Engel e-max 310/100 (clamping force of 100 tons) will be molding an electronic component using a mold from Austria's Möller. An e-motion 740/180, with a clamping force of 180 tons, will demonstrate the suitability of fully electric machines for the packaging industry. The

exhibit is equipped with an Engel ERS 21 linear robot. Another all-electric machine, an e-motion 200/55, will mold COC vaccine receptacles on a mold from Germany's Köbelin (Eichstetten).

Plenty of packaging from Netstal/b>

In hall B3, stand 3107, Swiss machine manufacturer Netstal (Näfels; www.netstal.ch) is bringing four machines, with all of them at the heart of production cells. An Elion 1200-530 all-electric press will form thin-walled polypropylene drinking cups in a double mold from France's Caulonque in a sub-3-second cycle. IML (inmold labeling) is handled by a robot from Ilseman, with Motan bringing in the materials handling equipment and Germany's gwk responsible for cooling.



The second exhibit at the Netstal stand is an Elion 500-130. Netstal introduced its Elion electric range at K 2004 and reports having solid sales since then. On this second machine, an acetal (POM) sieve will be molded on a 24-cavity mold from Weisser & Griesshaber GmbH. HB-Therm provides the mold-temperature control equipment, and Motan again handles the auxiliary equipment.

The other Netstal machines are running at partner firm stands. A SynErgy 1200-460 with a 2+2 container mold and IML automation is on Ilseman's stand (hall A7, stand 7208) whereas an Elion 1750-840 with a 2-cavity container mold and IML will run in hall A5, stand 5116 at Polymac-Yushin's stand.

One-stop shopping/b>

Among other initiatives, newly joined Wittmann Battenfeld will use the show to highlight how acquisition earlier this year injection molding machine supplier Battenfeld by fellow Austrian firm Wittmann—one of the industry's leading suppliers of robotics and auxiliary equipment—makes it more of a one-stop shop for processors.

Wittmann Battenfeld will present itself in Hall B1, Stand 1204 and at three additional stands. In Hall A1 at Stand 1417, the company will present its new TM Xpress series running an inmold labeling (IML) application. Here for the first time the firm will present its concept of an integrated robot/conveyor belt inside the machine frame. Two standard machines from the hydraulic series will be showcased at the booth of Sagebäurer, a Battenfeld customer, in B3/3212.

One of the Battenfeld machines, an HM 110 hydraulic press, will demonstrate the molding of a felt tip holder using a mold supplied by Stemke (Döbeln, Germany; www.stemke.de, in German only). This is claimed to be the first mold worldwide that completely dispenses with cooling water, instead using a refrigerant that is pumped through the mold by a closed-loop device so that no refrigerant is lost. The refrigerant can extract heat even if pumped into cooling channels as small in diameter as 2 mm or less. Obviously, such a cooling method is especially suited to small cores, which are otherwise difficult or impossible to cool, and to areas inside a mold where water cannot be used. The felt tip holders are formed within a cycle time of 16 seconds, with parts removal handled by a W801 Wittmann robot.

Wittmann Battenfeld already announced that the next generation of its Microsystems machine range designed for molding of parts below 100 mg, will be introduced at the Fakuma '09 show in Germany. The current Microsystem 50 will be on display during Fakuma and will be offered until the next generation is available for purchase.

The new electric Microsystem will include the development of a completely new line offering two clamping forces, two sizes of injection units and the addition of various modules. The new version of the production cell will be based on the existing Microsystem 50 (see Product Watch in this e-Weekly for more).

Based on what it says is huge growth in the Microsystems market, Wittmann Battenfeld also envisions a new Micro Division focusing on the

design, application support, marketing, and completion of the new basic machine, with the firm's Martin Ganz managing this new department.

Trifecta of new presses/b>

Injection molding machine maker Ferromatik Milacron (Malterdingen, Germany; www.ferromatik.com) occupies Hall B3, Stand 3203 of Fakuma with three new machines as well as four established models. The new machines were unveiled at an open house earlier this summer and include the Base-Tec and Elektra models.

The Base-Tec is marketed as an economical model that will fit within the established K-Tec series with a number of standard features that can be extended with a predetermined set of options. The machine is built and assembled under Ferromatik Milacron's supervision by an as-yet unidentified Asian partner, with Ferromatik Milacron technicians handling installation at a customer's facility. The press is available in four clamping force configurations from 400 to 1100 kN, priced from euro 34,800, and will reportedly be available for delivery within weeks.

In a similar vein is the new Elektra selection, a special model in Ferromatik Milacron's all-electric series with a selected list of optional equipment. Here again, the press is marketed as offering top technology at a reasonable price with a short delivery time. The new special model is available in clamping force sizes of 500, 750, and 1100 kN, each with a choice of three injection units. These machines are manufactured in Germany and priced from euro 55,500, with delivery within six to eight weeks.

Also new is the Cap-Tec XL, a long-stroke version of the Cap-Tec the firm introduced in 2006 for closure/caps molding. The XL version is aimed at packaging processors and is available with 2000, 3000, or 4000 kN clamping force.

All three new machines plus a monosandwich press from the Maxima machine series will be on hand at the Ferromatik booth. The three other machines will appear at partner firms' stands. At its stand, Ferromatik also will present its new energy-saving GreenLine program, which helps to avoid costly energy peaks by preventing parallel functions when they are not strictly required. For example, in addition to a low-energy use electric screw drive, the hydraulic accumulator on the Cap-Tec XL machines uses 'accumulator management' so that it is filled only as much as required for a specific application.

Energy savings for precision parts/b>

Fanuc Roboshot Europe GmbH (Neuhausen, near Stuttgart, Germany; <http://www.fanuc.co.jp/en>), the European service/sales subsidiary of Japan's Fanuc Ltd., will present two of its Roboshot electric-drive injection molding machines at Fakuma in Hall B3, Stand B3-3108. A 50-tonne Roboshot will mold a connector in a 4-cavity mold while a 100-tonne version molds a medical part in a 48-cavity mold.

Takeshi Oda, chairman of the European subsidiary, says energy savings and molded part quality will be the one-two punch combination Fanuc throws hardest at Fakuma. On Fanuc's machines, the electrical energy produced as the platen decelerates while closing and again when opening after locking is used: "We are taking kinematics and turning it into regenerated electricity instead of heat that is simply dissipated," Oda explains. The amount of energy produced this way "depends on the machine, but it amounts to around 15-16% of power saved on average" in addition to what he says are the 40-60% energy savings by electric machines versus hydraulic ones. The Roboshot's control shows the energy consumed in kWh on the control system screen.

"Red Devil" fills the halls with molded parts/b>

A model from the Canbel Red Devil series from injection molding machine manufacturer Negri Bossi (Milan, Italy; www.negribossi.com) will be the centerpiece of the Sacmi Group stand (www.sacmi.it; Hall A5, Stand 5213). The new series of electric presses from Negri Bossi are indeed painted red, but the firm says RED also stands for Reliable Efficient Digital. Novel, says the firm, is a patented injection system, which uses both motors to distribute screw movement in a balanced way, making superfluous the use of smaller auxiliary motors. Negri Bossi's electric machines use two identical motors that join forces to provide maximum power during both the injection process and screw release. At the heart of the system lies a ballscrew with two opposite

half-threads, combined with two helical gears that connect it to the two motors. The different process stages— injection, screw rotation, plasticization, release—are achieved by adjusting the combination of rotation directions and the speed of the two motors. Visitors to Fakuma will see the 850-ton VE850, the largest machine in the Canbel series.

Oima, another Sacmi Group company, will display a 220-ton machine from its new Stratos KP series, specifically designed for the packaging industry, with the display designed to impress molders with its output and its energy efficiency. Also attending the Fakuma 2008 fair will be the sales staff of BM Biraghi, another Group company that produces thermoplastic, thermoset, and rubber injection molding machines.

Foamed parts take on improved appearance, strength and more/b>

North American manufacturers are a rarity at Fakuma but one making the trip is Trexel (Woburn, MA; www.trexel.com; Hall A4, Stand A4-4124), exclusive developer of the MuCell microcellular foam technology. The firm's German subsidiary is based in Siegen.

For molders at Fakuma, Trexel will illustrate its most recent developments including its Series III MuCell technology for small, precision parts; long-glass-fiber technology for improved dimensional stability; and Variotherm technology for good surface appearance when using the MuCell process.

The Series III System is designed for molding machines using screw sizes of 40 mm or less. Typically it is specified by a molder and then integrated into a new machine, but molders can also acquire it as a standalone package.

Based on industrial trials conducted over the course of the past year by Trexel on machines from different manufacturers, it says Series III users can see a 50-90% improvement in dimensional stability, along with 15-30% reductions in cycle time, 30-80% reductions in clamping force, plus expected savings in material usage of 6-12%, depending on the application and material used.

Parts produced using the Variotherm process by Hofmann Werkzeugbau GmbH will be shown. Hofmann is one of the first European moldmakers offering the Variotherm technology with its molds. Variotherm uses either dry steam or water to heat a mold prior to injection of material and then cools the mold with water.

Introducing the mid-sized JSW machines/b>

Last year Germany's Windsor Kunststofftechnologie GmbH (Hanau, Germany) announced it was a sales partner for The Japan Steel Works Ltd. (JSW; Tokyo) and sells/services JSW's electric injection molding machines in Germany and Eastern Europe. That partnership continues at Fakuma, where in hall A7, Stand 7101 the firms will for the first time in Europe present JSW's medium-sized range of machinery (5500-10,000 kN of clamp force). On display will be a 6500-kN unit and an electric vertical machine with a turntable and 400 kN clamping force.

At JSW, full control procedures that have so far been exclusively available for smaller machines of the J-AD line are also available for larger presses. The manufacturer also trumpets its machines' low energy use, reporting that the 6500-kN press requires only 68 kVA of power supply. The expansion of JSW and its sales partners in Europe will continue, says JSW, with CE-certified J-AD machines sized from 13,000-25,000 kN, entering the market by mid-May 2009.



[Modern Plastics Home](#) | [Conferences & Tradeshow](#)
[Subscribe](#) | [Infolink](#) | [Privacy Statement](#) | [Media Kit](#)

Copyright© 2008 Canon Communications LLC
11444 W. Olympic Blvd., Ste. 900, Los Angeles, CA 90064; Tel: (310) 445-4200

Contact Us

All rights reserved. Reproduction in whole or in part, in any form or medium
without expresswritten permission is prohibited.