Fakuma

Plastics News
Plastics News Europe

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ForTii adds up for DSM
Royal DSM is promoting a new grade ForTii for water management care. **PAGE 10**

COPERION CELEBRATES 60 YEARS OF ZSK
The development of the new, patented involute screw elements is the latest in a long line of ZSK innovations. **PAGE 11**

Future of robots: super-efficient and connected

By Bill Bregar
Plastics News Staff

Sepro Group
Hall A1, Booth 1203

Sepro Group officials are painting a future of robots running super-efficiently, complete with integration and smartphone apps.

Sepro also announced it is building robots for Chinese injection press maker Haitian International Holdings Ltd., covering Haitian presses sold in Europe. Jean-Michel Renaudeau, Sepro's managing director, said the three-axis and five-axis robots will be labeled "Haitian by Sepro."

Renaudeau said Sepro now supplies robots for nine injection molding machinery manufacturers. Haitian is the robot maker's first Asian partner, he said.

"The door is wide open at Sepro. We have been growing for these last years," Renaudeau said at the French company's Oct. 18 Fakuma news conference.

Renaudeau was discussing business growth, saying this year Sepro will deliver more than 3,000 robots to customers around the world and generate about 125 million euros of sales, an increase of 20 percent from 2016.

But of course, in today's plastics machinery business, "open" means more than money. Industry 4.0 programs are everywhere at Fakuma. At Sepro's exhibit, the robot maker has an "Open 4.0" booth.

Renaudeau said Sepro develops its own software giving it a big advantage in the new world of connected technology.

Caroline Chamard, Sepro's marketing and communication project manager, said 3D simulation and learning by doing are how people figure things out today, not by reading a long list

See **Sepro**, Page 14

Plastics News photo by Caroline Seidel

Jean-Michel Renaudeau, of Sepro Group, with the company's robots at Fakuma.

Plastics News photo by Caroline Seidel

Serif Erdogan, research and development manager of Elastron Kimya A.S.

Elastron opening US compounding plant

By Steve Toloken
Plastics News Staff

Elastron Kimya A.S.
Hall B5
Booth 5007

Turkish plastic compounder Elastron Kimya A.S. is investing $10 million to open a factory in the United States, its first outside its home country, to meet growing demand in automotive and other markets.

Elastron, which makes thermoplastic elastomer compounds, said in an interview at Fakuma that the facility near Atlanta will come online in 2018.

The firm also said it plans to open a compounding plant in China in 2020.

"We are growing very fast and logistics was a very big issue for us, so we decided to open a factory in the United States," said Serif Erdogan, research and development manager with the Gebze, Turkey-based firm.

The U.S. plant, in Gainesville, Ga., will start with two extrusion lines and annual capacity of 3,500 metric tons (7.7 million pounds), but the company is targeting 6,000 metric tons (13.2 million pounds) by 2020, he said.

"We are very strong in the automotive market and growing very fast in the automotive, construction and consumer applications," he said.

The U.S. facility will make thermoplastic vulcanizates compounds, along with styrenic block-based copolymers and TPEs.

Erdogan said the U.S. market is more accepting of those materials than other markets because TPV was first developed there.

"The TPE market is really huge in the United States," he said. "The U.S. market knows TPE much more than Europe or

See **Elastron**, Page 14

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FAKUMA SHOW DAILY

Sumitomo sales jump 15 percent

By Audrey LaForest and Bill Bregar
Plastics News Staff

Plastics News photo by Caroline Seidel

A very thin plastic container cover from Sumitomo Demag Plastics Machinery Gmbh.

Sumitomo (SHI) Demag Plastics Machinery GmbH reported ongoing growth for fiscal 2017, with sales of 273 million euros.

This year's sales figure marks an increase of 15 percent compared with 2016, when the company had sales of 237 million euros.

The injection molding machinery manufacturer, which has headquarters in Schwaig, Germany, said during an Oct. 18 news conference at Fakuma that forecasts for 2018 are also positive. This marks the fifth year of consecutive growth for the company.

The German-Japanese company attributed the growth to the continued success of its El-Exis high-speed injection compression molding machine — on display at the Sumitomo booth — high demand for its all-electric machines and a deeper focus on thriving regional markets.

CEO Gerd Liebig said he's expecting sales for 2018 to increase by about 10 percent.

"Next year, especially in medical and automotive, we would like to grow significantly," he added.

Liebig, who settled into his current role at Sumitomo at the start of 2017, also said Sumitomo has continued to grow its market in two strategic product areas: packaging and all-electric machines.

The company's market share for all-electric machines and high-speed injection molding machines is expected to reach 20 percent in 2018. Sumitomo said its new generation of IntElect, an all-electric precision injection molding machine that it launched earlier this year, is expected to make "major contributions" toward this anticipated growth, the company said.

Sumitomo has four plants in Japan, Germany and China and more than 3,000 employees. The company is owned by Sumitomo Heavy Industries Inc. in Tokyo.

Launching myConnect platform

At Fakuma, Sumitomo is launching its myConnect web-based platform for customers, and it announced plans to create an automation business unit.

The automation unit is headed by Andreas Schramm, a member of Sumitomo Demag's board and the former chief technical officer. He took the new post Sept. 1.

The operation will develop complete automation packages for injection molding. Liebig said Sumitomo Demag is looking at some automation manufacturing but did not provide details.

The main goal, he said, is to position Sumitomo Demag as a consultant to molders on automation. Company officials believe "there is significant potential" for increasing sales in the automation area. Liebig said the machinery maker is boosting its sales, service and engineering systems.

Production and integration of automated systems will happen at the machinery maker's site in Wiehe, Germany, where company officials plan to expand production. Liebig said Sumitomo Demag also is stepping up its cooperation with molders to develop specific advanced automation processes for their molded parts.

Liebig said one key goal is to integrate automation, machinery and parts tracking. Fakuma visitors can see an example: a housing for a car gear shift that, after molding, goes into a laser coding device and is marked on the underside.

Sumitomo Demag is now building an in-house automation testing facility.

The myConnect software platform will give customers a wide range of online services. Sumitomo Demag plans to deliver all its machines with network-compatible equipment and the option of wireless connectivity in the second quarter of 2018.

The standard package contains five modules that handle help support, documentation about the machine, spare parts ordering, a complete history of each and a myConnect app so customers can track their production from any location.

Andreas Holzer, Sumitomo Demag's service manager, said the software shows spare parts shoppers a 3D model that they can turn and disassemble electronically.

Hideki Kuroiwa, chief technical officer, said the new IntElect model continues Sumitomo Demag's work on all-electric injection molding machines. At Fakuma, a 50-ton IntElect II is molding nylon bobbins.

Kuroiwa is a veteran of Sumitomo Demag's parent company, Sumitomo Heavy Industries in Japan. He has worked on injection molding machinery development, including all-electric technology.

The new IntElect is aimed at molders of precision assemblies, engineering components and optical parts, the company said.

"Our aim is to be a trendsetting company for both the packaging industry and our all-electric machine," Kuroiwa said at the press conference.

Sumitomo (SHI) Demag Plastics Machinery GmbH
Hall B1, Booth 1105

Toolmaker Deckerform evolves into a system partner

By David Vink
Plastics News Correspondent

Deckerform Group
Hall A6, Booth 6222

Deckerform Group's Fakuma exhibit is dominated by a Toyo all-electric double-toggle injection press.

The machine is molding polystyrene cups in a 12-cavity mold with cycle time of 3.5 to 4 seconds. The cups are handled by a Scara robot from Montecassiano, Italy-based Campetella Robotic Center srl (Hall A7, Booth 7208) before being film-wrapped in sets of 20 by equipment from Schio, Italy-based Lafer Packaging srl.

Franz Tschacha, managing partner, explained the family-owned toolmaker's decision to prominently display the Toyo machine: Aichach, Germany-based Deckerform and Toyo held discussions at K 2016, resulting in an agreement for Deckerform to handle sales and support of Toyo molding machines in Austria, Germany, Liechtenstein, the German-speaking part of Switzerland and joint representation in Russia.

The deal provides synergy with Deckerform's traditional core activity of production of compression and injection molds, along with product design and development. In addition, Deckerform already represents French robot producer Sepro Robotique.

With 72 employees, Deckerform has around 11 million euros in annual sales. The Toyo and Sepro activities are managed by Franz Tschacha's daughter, Anna Tschacha, as managing partner of Deckerform Injection GmbH, who talked about expecting the Toyo and Sepro areas to jointly contribute 2 million to 3 million euros in 2017 sales, rising to 4 million euros in 2018.

Claudio Braga, export sales manager at R.P. Injection srl in Brescia, Italy, which provides support throughout Europe for Toyo, said that, excluding German-speaking countries, Toyo sold 135 of its all-electric machines in Europe in 2016. Takahashi said Europe accounts for 10 percent of Toyo machine sales, with plans to increase this to 15 percent within five years. Toyo sells 2,000 machines per year worldwide.

At Deckerform's Fakuma news conference, Alexander Knobloch of Oliveira de Azeméis, Portugal-based molder and toolmaker Macro Group, said Macro bought its first Toyo machine in 2010 and "it has run ever since on three shifts per day, with no repairs or maintenance at all." This encouraged Macro to acquire a second Toyo machine in 2013.

Knobloch said Macro presently has 10 injection molding lines with 60-2,500 tonnes clamping force machines and added its next investment will be into 700, 900 and 1,100 tonnes Toyo machines.

"The future for Macro will be just all-electric Toyo machines, without any ifs and buts on that," Knobloch said, pointing to high energy costs in Portugal. He was supported by Franz Tschacha, who said: "This is a clear pledge by Macro that it wants to earn money."

Plastics News photo by Caroline Seidel

Franz Tschacha, managing director of Deckerform Group.

China drives growth for KraussMaffei

By Audrey LaForest
Plastics News Staff

KraussMaffei Group GmbH is experiencing powerful momentum from China 18 months after the company was purchased by state-owned China National Chemical Corp. (ChemChina) in April 2016.

ChemChina bought the Munich-based plastics processing machinery maker for 925 million euros. Since the acquisition, KM CEO Frank Stieler said the company is seeing growth and potential in China due to its shareholders and the company's presence there.

"This year, but next year especially, we are massively investing in production sites in China," Stieler said in an Oct. 18 news conference at Fakuma.

The company's injection molding machine manufacturing plant in Haiyan, China, has doubled its production volume and is anticipating an additional increase next year. The Chinese plant produces KM's GX series two-platen hydraulic injection molding machines with clamping forces of about 400-900 metric tons as well its MX series, which offers higher clamping forces of 850-5,600 metric tons.

Plastics News photo by Caroline Seidel

Hans Ulrich Golz, president of KraussMaffei's injection molding machinery segment.

KM said its PX series of all-electric injection molding machines has been well-received in Germany, China and the United States, and that production capacity for 2018 will need to be doubled due to the high interest.

The company bills the PX as a "made-to-measure" press, allowing customers to mix and match clamping and injection units, tailoring the press for specific molding jobs. KM offers the PX in clamping sizes from 50-200 tons.

KraussMaffei Group GmbH
Hall A7, Booth 7303

Hans Ulrich Golz, president of the injection molding machinery segment, said KM makes the PX in Slovakia, and he said the production expansion will happen at the factory.

Orders and sales for 2017 have increased over last year by 10 percent. As of August 2017, total sales for the group reached 860 million euros. In 2016, the company's sales were 780 million euros.

KM attributed the growth to trends in digitalization, new technologies and services, and ongoing investments at its three Chinese locations. Since being purchased by ChemChina, KraussMaffei has grown its global workforce by about 14 percent to include more than 5,000 employees.

A new 'lease' on machinery

In other news, KM has introduced a leasing model for all KraussMaffei and Netstal standard injection molding machines up to 300 metric tons. The company is debuting the program for the German market.

"Today, we can choose to purchase or lease a car, but not machinery," Stieler said.

Under a four-year contract, customers have access to the latest models without having to pay the upfront costs of new machinery. At the end of the leasing period, customers can purchase the machine, lease a new model or return it to KraussMaffei.

The company said its market analysis has shown there's huge potential for secondhand machines. Stieler said he has "high expectations" for the leasing program.

Plastics News *senior reporter Bill Bregar contributed to this report.*

Engel announces creation of new composites system

By Bill Bregar
Plastics News Staff

Engel Holding GmbH is announcing the creation of Engel Composite Systems at Fakuma, as well as rolling out its new customer portal called e-connect.

Engel already runs the Center for Lightweight Composites at its plant in St. Valentin, Austria, where the company makes large-tonnage machines. The location makes sense because big presses are used by the automotive sector, where structural composite parts give major weight savings.

Engel Holding GmbH
Hall A5, Booth 5204

While the Center for Lightweight Composites has proven out the use of fiber-reinforced plastics for new applications and continues to develop new technology, the Engel Composites Systems business will support customers in actual end-product planning and the production launch phase, covering all countries.

Matthias Mayr is the head of Engel Composite Systems.

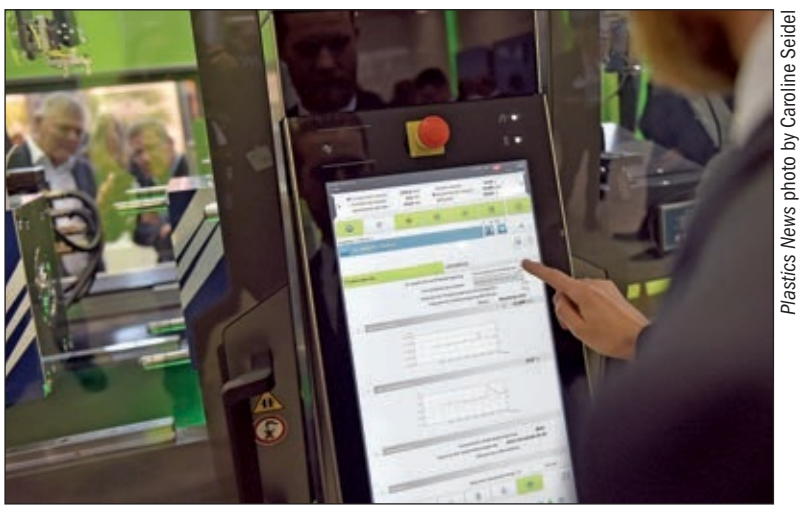
Christoph Steger, Engel's chief sales officer, said the increased demand for integrated lightweight parts and systems requires a separation of the actual project work from development work.

"With this, we are ensuring that we can continue to advance with intensity and development of new production processes while also continuing to represent a wide range of technologies," Steger said.

The center handles all composite technologies, including high-pressure resin transfer molding (HP-RTM) and sheet molding compound (SMC), as well as reactive technologies like in-situ polymerization. The composites gurus at Engel also cover the processing of semifinished thermoplastic products such as thermoplastic fabrics and tapes.

Engel also is announcing its new customer portal at Fakuma. Engel CEO Stefan Engleder said e-connect, which Engel introduced as a prototype at K 2016, will first go live in Germany, Austria and Switzerland.

The portal simplifies and speeds up communication between processors and Engel while giving an overview of machinery, the processing status of service and support orders, and prices and availability of spare parts. E-connect also supports predictive, condition-based maintenance. Engel e-commerce also can monitor the condition of screws and spindles, he said.



Plastics News photo by Caroline Seidel

An Engel Holding GmbH employee uses the firm's machine at Fakuma.

Engel's Fakuma stand is packed with machines, including clearmelt technology, showing the first clearmelt exterior automotive component. For clearmelt, the base carrier gets injected molded, then in a second mold cavity, it is coated with transparent polyurethane in a second cavity. The pre-finished parts do not need to be varnished or post-processed.

Officials said clearmelt gives a scratchproof part in a single step, as the polyurethane coating gives the high-gloss, scratchproof surface. Up until now, clearmelt's focus has been on decorative elements and electronic components for car interiors.

Any new application gets laboratory testing, but Engel said automotive exterior parts get even more: "Testing in a car wash has shown the initial sample parts to be very robust," the company said in a news release.

In the electronics sector, Engel is going all-electric at Fakuma, with a new larger size of the e-mac machine. An e-mac with 280 tons of clamping force is molding a connector housing for vehicle doors. The 40-pole connector housings are of glass-fiber-reinforced polybutylene terephthalate.

For the medical sector, Engel has paired its stainless-steel pipe distributor system, for cavity separation, together with it's a bag packaging cart as a single, fixed unit. That makes the portable unit extremely compact, Engel said.

In automation news, Engel has made its viper 20 robot even faster, able to do part removal times less than one second. That speed lets the robot run on cycles of around four seconds, making the viper 20 suited to packaging and medical applications.

TK Mold looks to Europe to train its next generation

By Steve Toloken
Plastics News Staff

TK Mold (Shenzhen) Ltd.
Hall A6, Booth 6309

The new head of one of China's largest export-oriented mold makers, TK Mold (Shenzhen) Ltd., is looking to Europe to help train the next generation of Chinese toolmakers.

Joerg Wehling, who took over as general manager of TK Mold earlier this year, said he's very interested in TK joining an apprenticeship program that Austrian plastics machinery firm Engel Holding GmbH and several others started in Shanghai in 2013.

Engel and its partners transplanted the intensive Austrian and German four-year apprentice training program to their China factories and saw their first class of graduates finish this year.

"I like this program; I think this is the future for Chinese mold making," Wehling said at Fakuma. "We need mold makers in China, definitely, educated mold makers."

The push for training is partly a response to China's rising costs, he said, which are forcing companies like TK to automate and upgrade to maintain global competitiveness.

TK Mold is part of TK Group (Holdings) Ltd., a large injection molding company that has factories in China and is publicly listed in the Hong Kong Stock Exchange. TK Group has about 3,500 employees and HK$1.62 billion (US$205 million) in sales last year.

Wehling said he's talking with Engel and its other partners in the Shanghai program, plastic packaging firm Alpla-Werke Alwin Lehner GmbH & Co. KG and connector solutions company Odu GmbH & Co. KG.

He hopes TK could start participating with them next year. China's large mold making industry needs employees with a broader set of skills, he said.

"These will be the toolroom managers in China — let's say for the next decade, in my opinion — because these people have this deep knowledge," Wehling said. "They know about steel, they know about manufacturing, they know about design.

"This is the perfect toolroom manager for the future," he said.

TK Mold's sales rose 5.5 percent in the first half of 2017 to HK$306.1 million (US$39.2 million), as the group has tried to expand into ultra-large molds for the automotive industry, the company said in an August filing to the Hong Kong stock market.

"The competition in China is getting stronger and stronger," he said. "That's why we have to choose the right strategy for the future."

Wehling said that strategy includes pushing into other markets demanding precision mold making, particularly medical and packaging.

"My plan, and the plan as well of the board members, is to increase our share in packaging and medical," he said. "These are the most growing businesses in the future."

He said more than 90 percent of TK Mold's business is export-oriented, so the firm also wants to develop more business within China.

But rather than target domestic Chinese companies, he said TK will focus on global brand companies like Danone that also sell a lot within China.

"They want to have a local mold maker there who is doing the molds for them for their local production," Wehling said.

Plastics News photo by Caroline Seidel

Joerg Wehling, TK Mold Ltd.'s general manager

Lubrizol TPUs aim to meet market needs

By Frank Esposito
Plastics News Staff

Lubrizol Corp.
Hall B5, Booth 5001

Lubrizol Corp. is at Fakuma with a full lineup of thermoplastic polyurethane materials.

"We have a lot of versions so we can adapt to our customers' needs," Europe/Middle East/Africa distribution manager Fabio Morelli said at Fakuma, where Lubrizol is exhibiting with distribution firm Velox GmbH.

"We can adapt the material to the process that's being used, whether it's injection molding or extrusion or another type of process," he added. "We're the only [TPU] supplier with this philosophy and with a broad portfolio."

Materials in focus for Wickliffe, Ohio-based Lubrizol at Fakuma include BounCell-X TPU microcellular foam made with Trexel Corp.'s MuCell technology. The foam can be used in thicker parts with low density for markets such as footwear, sports and recreation and industrial applications, Morelli said.

BounCell-X technology also contains no extra chemical additives, which officials said makes it a good fit for brands with sustainability goals and post-consumer recycling programs.

Lubrizol also is focusing on low-smoke, zero-halogen flame-retardant grades of Estane-brand TPU for wire and cable applications. New grades can meet robotics and Industry 4.0 requirements such as a superior flexibility and durability.

Morelli said TPUs initially were replacing PVC in wire and cable applications but now are replacing older grades of TPU.

Distribution firm Danquinsa is showcasing Lubrizol's non-yellowing aliphatic TPUs at Fakuma. The materials were part of Lubrizol's 2011 acquisition of Spanish TPU maker Merquinsa.

Non-yellowing characteristics are needed in paint protection films for cars, planes and other vehicles, Morelli said. They're also being used in flooring systems, he added.

Outside of plastics, Lubrizol is a global leader in lubricant additives.

Plastics News photo by Caroline Seidel

Fabio Morelli from Lubrizol Corp.

The firm, a unit of investment company Berkshire Hathaway, employs 8,300 worldwide and posted sales of $6.5 billion in 2016.

Collin shows restructured portfolio

By Karen Laird
Plastics News Europe

Collin Lab & Pilot Solutions
Hall A6, Booth 6305

When, in 2014, the new owners took over Collin Lab & Pilot Solutions, a family-owned company headquartered in the Bavarian city of Ebersberg, one of the first goals was to expand, restructure and modernize the company's product portfolio.

The results were amply demonstrated at Fakuma 2017. CEO Friedrich Kastner pointed to various new developments on display, emphasizing that at Collin, the common denominator and key theme behind all developments, was modularity.

"We produce lines of different sizes — our range goes from small-scale lines for basic research and medical technology and pilot lines up to production lines. What our customers want is upscalability. Essentially, we deliver plug-and-play systems. You can start with an installation for producing five-layer film, but, because of our modularity, extruders can easily be added to go up to nine layers."

One of the latest developments is a blown film line that has been completely updated and technically optimized, Kastner said, and is equipped with a new take-off unit, lay-flat unit and winder.

The company was also showcasing its PolyTest line of inspection and testing devices. Kastner demonstrated the "multi-inspection" unit, consisting of a chill roll unit with a roll mill for optical and mechanical film inspection including a film winder and optionally an upstream rheological measuring section. It allows for real-time monitoring of the melt viscosity, statistical error in the film, color monitoring, detection of foreign polymers by NIR analysis and determination of stress-strain values in a film tensile test.

"The line is used for the analysis of different plastics material and mixtures, but also for the processing of virgin materials, compounds, masterbatches or the analysis of recycled plastics material," Kastner said.

"It's ideal for testing recycled material. It provides continuous sampling and online analysis of the material, which, after all, is usually made up of a mixture of post-consumer waste. It shows the different material fractions, calculates the e-modulus and much more. We've also targeted it, cost-wise, at the typical recycler, so the price is an accessible one," he explained.

The last stop on the stand was at the new die, designed for modular, flexible use.

"This die is used to produce medical strands and catheter tubes. Because it is flexibly designed, customers can use it for the production of a wide variety of blown films," Kastner said.

Boy shows multiple molding demonstrations

By Bill Bregar
Plastics News Staff

Dr. Boy GmbH & Co. KG
Hall A7
Booth 7101

Visitors to the Fakuma stand of Dr. Boy GmbH & Co. KG see eight molding demonstrations, plus another six at the Fakuma booths of partner companies.

At the Boy booth, the company is showing its new tabletop injection press, the Boy XXS, with just 6.3 tons of clamping force, molding small carabiner clips on a mold with metal inserts made via 3D printing.

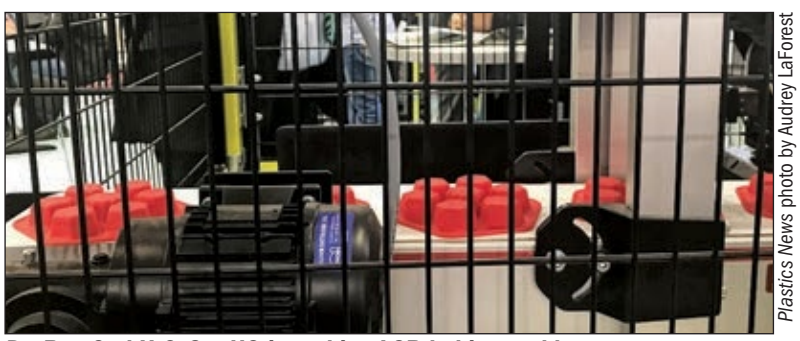
The mold clamping system of the Boy XXS allows very short setup times, a key feature for small-series production and prototype molding.

Boy also is molding PEEK into a diode holder on a 10-ton Boy XS press, which also can use 3D printed mold inserts. Boy officials said that using an automatic tooling system, where you just change the mold inserts, can cut costs.

Boy also is molding liquid silicone rubber baking molds to make the Dutch muffin-style treat, poffertjes, on a 45-second cycle. An Igus rotolink 5 robot removes the part from the mold and puts on a conveyor belt for cooling.

Another demonstration at Fakuma is a 100-ton Boy 100 E, with a double servo-hydraulic pump, which enables parallel buildup of nozzle-contact pressure and high pressure at the beginning of the molding cycle. At the end of the cycle, the double-pump allows simultaneous movements of mold opening and part ejection. That cuts cycle time.

Boy presses also are running at FH Nordschweiz (Hall A2, Booth 2222), Ultra Systems SA (Hall A7, Booth 7120), Proll KGF (Hall A4, Booth 4123), geba Kunststofftechnik GmbH & Co. KG (Hall B4, Booth 4212), Farrag Tech GmbH (Hall A3, Booth 3205) and AC Mold & Die Co. (Hall B5, Booth 5325).



Plastics News photo by Audrey LaForest

Dr. Boy GmbH & Co. KG is making LSR baking molds.

Turkey's Epsan opens Italian office

By Steve Toloken
Plastics News Staff

Epsan Plastik
Hall B5, Booth 5411

Turkish compounder Epsan Plastik Sanayi Ve Ticaret Ltd. Sti opened a third office in Europe in September, in Italy, to try to better tap into links among the automotive, electronics and appliance industries in the two countries.

Epsan, which is based in Bursa, Turkey, opened offices in Germany and Spain in the last three years and built a second factory in Turkey in 2015. The company makes nylon and polybutylene terephthalate compounds.

Global Sales Manager Arda Efe said Epsan gets about half of its sales from exports and wants to build more business with Italian companies that have manufacturing in Turkey but sizable research and development in Italy, like carmaker Fiat Chrysler Automobiles NV.

"It's synergy between the Fiat labs in Italy and manufacturing in Turkey, and helping us grow more business in Turkey as well as other European countries where FCA is active," Efe said in an interview at Fakuma.

"The market is growing very nicely," he said. "If you look at all the data and the marketing research, you will see that the automotive production and the polyamide used in the automotive production is increasing."

Epsan is targeting European manufacturers for growth and sees long-term potential for itself with its three offices there, Efe said.

"We've come to a point where we cannot grow any longer in Turkey, because of the size of the market," Efe said.

The new office will be led by Davide Meli, who the company said was a veteran of more than 15 years in the Italian market.

Meli said Epsan is also trying to build stronger links with Italian and other European companies who use nylon materials in components for household white goods like dishwashers.

Many of those components are made in Europe but exported for final assembly to Turkey, which has a large manufacturing base for such white goods, before being shipping around the world for sale.

"It's the components they supply for the household appliances [manufactured] in Turkey, they are molded and assembled in Italy and other European countries, that's why we have to be active there," Efe said.

Epsan, which has 145 employees at its two factories in Bursa, is also looking at acquiring a European compounding plant and has had several serious discussions in the past year, Efe said.

"We have plans to acquire a plant in Europe," he said. "It's hard to say a certain time. But we are exploring alternatives.

"It gets serious to a point where we fly in, do the audit and everything, but if it doesn't fit us, we fly back," Efe said. "We just need to find the right people, not the right company, but the right people in that company to work with.

"We're growing so fast. Either we're going to put up more lines in Turkey or move to Europe and put up a plant there."

Epsan has capacity of 35,000 metric tons in Turkey, with seven extrusion lines. It does not disclose annual sales.

Plastics News photo by Caroline Seidel

Arda Efe, left, and Davide Meli from Epsan Plastik.

Taking physical foaming a step further

By David Vink
Plastics News Correspondent

The largest, main exhibit at the booth of KIMW Kunststoff Institut Lüdenscheid is a molding demonstration of a new DryFoam physical foaming process based on a carbon dioxide foaming agent. As with many inventions, the process evolved earlier in the year by coincidence when KIMW was looking at using compressed gas to dry thermoplastic granulates.

Visit these companies to learn more:

KIMW
Hall A5
Booth 5312

ProTec Polymer Processing GmbH
Hall B3
Booth 3119

Linde AG
Hall B3
Booth 3309

Trexel GmbH
Hall A4
Booth 4007

So when it was discovered that a large amount of the CO2 became absorbed in the plastic, the idea was born to feed the impregnated resin into an injection molding screw to see what would happen, resulting in the gas becoming released to form foamed material. A wide range of different thermoplastics has been trial molded, leading to lightweight parts.

"Quite honestly, we don't know how it works, and that is subject of basic research activities at various research institutes," said Stefan Schmidt, head of KIMW. "We also found that in evaluation of the foaming effect, it is necessary not just to make conclusions on, for example, ABS as a type of material, but to go into detail with investigations with different ABS grades as they all behave differently in the new foam process from one grade to another."

Schmidt added that KIMW takes a very pragmatic approach, taking both the right tooling and specific material into account before making statements on feasibility to its clients. KIMW has many samples to evaluate for customers; the work will go into early 2018.

Each evaluation takes a few months. The first trial is made free of charge for customers to see if the process works in their material. "After that," Schmidt said, "trials cost 1,000 to 1,600 euros each, which is our normal price for such work. But the result for that price is then a final part put into the customer's hand. I find it a very charming solution with short development routes."

Schmidt stressed the attractiveness of the new foam process in that customers can use existing dryers and injection molding machines, needing only to invest 40,000-60,000 euros into the autoclave system between the dryer and molding machines. "Of course, dryers can also be integrated with the autoclave unit," Schmidt added.

Specifically here, KIMW has partnered with Bensheim, Germany-based ProTec Polymer Processing GmbH, a system supplier with a focus on injection molding. The company is offering mobile Somos RDM granulate dryers for the new foam process. Eventually, it will offer a unifed dryer and autoclaving unit with conveying equipment.

Plastics News photos by Caroline Seidel

ProTec Polymer Processing CEO Peter Theobald at the company's booth.

"Our part is the hardware," said Peter Theobald, CEO of ProTec. "We started developing the system just two months ago and currently have a number of prototypes available."

Physical foaming, he explained, permits high foaming pressures and avoids deposits caused by residue arising during chemical reactions.

Theobald and Schmidt said that when the process is a closed circuit, the CO2 gas can remain unused in the granulate for four to six hours.

"There's a window during which you can use it in injection molding machines," Theobald said. He talked about launching a ProTec system solution at Fakuma 2018, which would also include both CO2 and nitrogen gas versions.

Another partner in the development is industrial gas supplier Linde AG, which wants to commercialize the foam process in 2018, based on its Plastinum CO2-based foam system solutions.

The live demonstration at the KIMW booth takes place on an IntElect 100-340 electric drive injection molding machine from SHI Sumitomo Demag. The display shows unfoamed, foamed and counter-pressure foamed bottle openers, the latter's compact outer skin resulting in less weight saving.

Schmidt sees the new foam process as an addition to existing foam molding processes. The Mucell microcellular physical foaming process from Siegen, Germany-based Trexel GmbH, for example, may be a more economic solution for very large production volumes, Schmidt said, adding that it depends on the individual application.

Looking ahead, he said KIMW has already received inquiries as to whether the CO2 foam process can be used with silicone rubbers and thermosetting plastics.

Plastics News Europe Editor Karen Laird contributed to this report.

Kunststoff Institut Ludenscheid presents a new physical foaming process.

Plastics News ▸ Plastics News Europe

FAKUMA SHOW DAILY

Varioplast commercializes process

By David Vink
Plastics News Correspondent

Varioplast Konrad Däbritz GmbH
Hall A1, Booth 1007

Following four years of work together with the Pforzheim University of Applied Sciences, Ötisheim, Germany-based molder Varioplast Konrad Däbritz GmbH has developed a new Turbotherm variothermal dynamic rapid heating and cooling process to eliminate visible knit lines on molded parts.

Varioplast says the patented process is a relatively low-cost solution compared with other variothermal solutions due to low energy consumption and the way in which the tailored impulse heating can be applied selectively only to areas on moldings where visible knit lines occur. Compressed air consumption is also low.

As with other variothermal systems, there are other benefits aside from elimination of visible knit lines, namely high replication of mold cavity surfaces on molded parts.

Long flow paths are achieved by avoiding premature melt freezing, on account of injection against relatively hot mold surfaces.

This is a challenge with conventional temperature control on parts involving an unfavorable flow-path-to-wall-thickness ratio.

Turbotherm features include acceleration of the turbulent airflow used for temperature control accelerating according to venturi principles and use of a heat recirculation sleeve.

Varioplast development engineer Daniel Koch has been dedicating much of his time to the Turbotherm project, aside from day-to-day responsibilities and tasks.

Holding a Mercedes star emblem alongside the Turbotherm system mold cavity, he said "although the main aim has been elimination of visible knit lines, a side effect was that surface quality has been improved, for example, with less surface pressure marks and sink marks."

Koch said heating is applied until holding pressure is reached and that the heating air is easily diverted away from the cavity to facilitate cooling. The Turbotherm heating rate depends on the type of thermoplastic being molded, but Koch talked of a typical rate of 5° to 10° per second as common.

Detecting knit line visibility is notoriously difficult on mirror-finish surfaces, where they may be hidden by or falsely associated with surface scratching. But he turned the samples around to show the matte sides, where knit lines were clearly visible to the naked eye on standard examples and completely invisible on the Turbotherm ones.

Koch said Varioplast uses Turbotherm itself, also with a six-axis part handling robot, and found that heating can take place parallel with part removal. With commercial launch of Turbotherm in January 2018, "when we intend to make it available also to our competitors," Koch said.

Varioplast is using Fakuma as a venue to establish contact with potential Turbotherm sales partners, as the company lacks resources to actively promote the system within the molding community.

Koch stressed that Turbotherm fits within standard Euromap interfaces, does not require injection molding tool modification and can be retrofitted to existing multicavity tools.

Plastics News photo by David Vink

A Varioplast Turbotherm system applied to a Mercedes star emblem mold cavity.

ForTii adds up for DSM

By Frank Esposito
Plastics News Staff

Royal DSM
Hall B4
Booth 4408

ForTii is Royal DSM's favorite number at Fakuma.

The Dutch materials maker is promoting a new grade of the high-performance nylon, called ForTii Ace, for water management care at the event. The material, introduced last year at K 2016, was developed for demanding drinking water applications. A water management grade of DSM's Xytron-brand PPS compounds also is available.

"Water consumption is increasing globally," Joost d'Hooghe, DSM's Europeon commercial director, said in an interview at Fakuma. The new ForTii grade "completes our portfolio in water management," he added.

The ForTii Ace grade has 30 percent glass fiber content and has proven superior retention of properties in long-term water contact, officials said.

Tests carried out confirm that ForTii Ace WX51-FC also has superior hydrolysis resistance, maintaining its strength for a much longer period than alternative materials. Its overall resistance to most chemicals at elevated temperatures also is very good, officials said.

ForTii also is strong in consumer electronics, according to Tamin Sidiki, global electronics marketing director. A high-temperature grade of the material can withstand temperatures of up to 160°C and offer performance similar to PEEK.

For structural parts, ForTii can provide both temperature and chemical resistance, according to Tim Vorage, automotive program manager. ForTii Ace also has been commercialized in a part for a weed trimmer.

DSM employs 25,000 worldwide and has annual sales of around 10 billion euros (US$11.8 billion).

Plastics News photo by Caroline Seidel

Tim Vorage, Royal DSM's global growth manager for ForTii Automotive, at the company's booth at Fakuma.

Ascend boosting production of nylon 6/6 resins, feedstocks

By Frank Esposito
Plastics News Staff

Ascend Performance Materials LLC
Hall A4, Booth 4119

Ascend Performance Materials LLC plans to add capacity for multiple products, including nylon 6/6 resins.

Houston-based Ascend first will add capacity for adiponitrile feedstock at its plant in Decatur, Ala., said Scott Rook, nylon commercial operations vice president, in an interview at Fakuma. He declined to provide details of the expansion but said that the project will create new jobs and "will meet [Ascend's] needs."

Rook estimated that the global nylon 6/6 market will need an estimated 385 million pounds of annual adiponitrile capacity in the next five years. "Capacity is very tight in the industry," he said.

Over the next two to three years, Ascend will add production capacity for nylon 6/6 resins as well as for hexamethylenediamine (HDM) and adipic acid feedstocks. The firm is seeing double-digit demand growth for its resins from automotive and other markets.

"We're ramping up capacity to support the growth of the industry," Rook said. Ascend makes nylon 6/6 resins in Pensacola, Fla., and Greenwood, S.C., and compounds based on nylon 6/6 in Pensacola and Foley, Ala.

At Fakuma, Ascend introduced a new high-performance grade of its Vydyne-brand nylon 6/6 compounds. The new grade is aimed at unattended appliances such as washers and dryers.

Plastics News photo by Caroline Seidel

Scott W. Rook from Ascend Performance Materials LLC.

Officials said the new grade "will bring extra safety" to electrical connectors used in those appliances. In addition to excellent electrical and flammability properties, the new Vydyne grade also exhibits high ductility and elongation at break, they added, providing engineers with greater freedom when designing parts such as living hinges and snap fits.

The new unreinforced, flame-retardant compound also has superior melt flow and requires lower pressure to fill molds, reducing cycle times and production costs, officials said.

Ascend employs 3,000 worldwide. Private equity firm SK Capital Partners of New York has owned Ascend since 2009, when it bought the integrated nylon business of Solutia Inc.

Dow Performance Silicones launches new additive

By Shahrzad Pourriahi
Plastics News Europe

Dow Performance Silicones, part of DowDuPont Inc.'s materials sciences division, has launched a new plastics additive at Fakuma that delivers long-term slip performance without migration for processing of biaxially oriented polypropylene films.

According to Christophe Paulo, global segment leader, plastic additives, the HMB-6301 Masterbatch, which is currently patent-pending, is aimed at high-end packaging solutions that use lamination, metalization and paper effect.

"When you take a BOPP film, you stretch in two directions. Usually, you add a processing additive to reduce friction and slip agents. These additives migrate by default. You add them to the core of the material, and they come to the surface within 24 to 36 hours to play the role of slip agents. But they migrate in both directions through the layers of materials," Paulo said.

But when you need a slip property, you need it on one side of the film.

"That is because you want to print or metallize the other side of the film and you do not want the agents to migrate there," he said.

With a standard agent, usually a barrier is added to avoid migration. But the new Dow additive doesn't require that.

"With our additive, you don't put it into the core of the material. You put it on the layer, where you need the slip property. And that's it; you use it at a far lower concentration," Paulo added.

While the material itself is more expensive than the standard slip agents on the market, Paulo insists it will be cost-efficient as it will increase productivity.

In fact, a major European packaging company has been trialing the product and has reported a 30 percent increase in efficiency, according to Paulo.

Currently producing the additives at its production facility in Saint-Luarent-du-Pont, near the French Alps, Dow Performance Silicones sees ASEAN as a key market where a majority of films are produced.

According to Paulo, Dow Performance Silicones has been introducing new additives into the market every four to six months for the past four years, showing an 18 percent compound annual growth over the period.

The company is also increasing its R&D efforts in the additives segment.

"Our R&D people were usually split between additives and ready-to-use types of materials such as TPEs. The split, up until a recent past, was 40 percent to 60 percent, respectively. With the growth in the additives business, the split has now reversed, with work on additives covering more than 65 percent of activities," he said.

Coperion celebrates 60 years of ZSK

By Karen Laird
Plastics News Europe

While the eye-catcher at Coperion GmbH's booth at Fakuma 2017 is, without doubt, the modular loss-in-weight feeder for liquids and the twin-screw powder feeder on display, the company had plenty of other news.

"We are extremely proud of the fact that this year, we are celebrating the 60th birthday of our ZSK extruder series — the forefather of all twin-screw extruders," said Bettina König, global marketing communications director. "We delivered the first co-rotating ZSK twin-screw extruder in 1957, and since then, of course, they have gone through many evolutions, going from simple co-kneaders to high-performance machines."

Turning 60 is truly proof of concept, she added.

The latest in a long line of ZSK innovation highlights is the development of the new, patented involute screw elements. As König pointed out, the ZSK twin-screw extruders produced today have a throughput rate that is 35 times higher than it was 60 years ago for a machine with the same shaft center distance.

"With the latest innovation, with certain formulations and recipes, customers have been able to achieve throughputs that are a remarkable 100 percent higher than what they were able to achieve with conventional screws," she said.

Comprehensive tests at Coperion's test lab in Stuttgart, Germany, showed a remarkable throughput increase depending on the recipe. For example, when processing polypropylene and 70 percent CaCO3 on a twin-screw ZSK 58 Mc18, the new screw elements achieved a significant throughput increase from 550 kg/hour to 900 kg/hour. Similar results have been reached when processing polyethylene with 80 percent CaCO3 on a ZSK 92 Mc18.

The development was announced at K 2016, but not shown and not available at that time.

"It was communicated to the Asian market at Chinaplas, but we did not have it displayed there," König said. "Here, at Fakuma, is the kickoff for the rest of the world."

The involute screw and kneading elements have a new and patented cross-section design. These screw elements are ideal for highly filled recipes for which the dispersion rating and the incorporation of the filler represent a limitation. Besides higher throughput rates, these elements ensure a higher loading of filler, better dispersion and homogenization and a lower energy consumption.

"The screw element design, the way the elements are assembled on the screw and where they are positioned have all contributed to this significant increase in throughput," König said. Although the design is patented, the company is not releasing any more technical details about the development, nor is it on exhibit at its booth.

"But the true secret can't be copied," she said. "The true secret is our process know-how. Sixty years worth."

Coperion GmbH
Hall A6
Booth 6406

Plastics News photo by Caroline Seidel

Bettina König, global marketing communications director for Coperion GmbH.

Solvay adds specialty grades, Mexican compounding line

By Frank Esposito
Plastics News Staff

Plastics News photo by Caroline Seidel

Tom Wood, Solvay SA's specialty polymers executive vice president.

Solvay SA has launched several new specialty resin grades and added a compounding line in Mexico.

The Brussels-based materials maker was spotlighting two grades of its Ixef-brand polyacrylamide (PARA) resin at Fakuma. The first is a super-stiff grade reinforced by carbon fiber and glass fiber. It's finding a home in high-end auto parts, as well as in digital cameras, Tom Wood, specialty polymers executive vice president, said at Fakuma.

The other new Ixef grade is a 50 percent glass fiber material that can be colored orange to be used in signal applications, such as high-voltage areas of electric vehicles. The material is easily colorable, Wood said.

Solvay also has added thermal management options for its Ryton-brand PPS and Amodel-brand PPA, primarily for auto applications.

"The share per car for our materials is increasing, as suppliers look for higher temperature, lower weight and higher performance," Wood said. "Since we make both PPS and PPA, we can use either one, based on which material best fits the application."

He added that Solvay has increased Ryton production in

Solvay SA
Hall B4, Booth 4213

Borger, Texas, since acquiring the business from Chevron Phillips Chemical in 2014.

The new compounding line is making compounds based on Solvay's Technyl-brand nylon resins at a location in San Luis Potosí, Mexico. It opened in July and has annual production capacity of around 22 million pounds.

The line is located near a plant operated by Chunil Engineering, a longtime automotive customer of Solvay. Solvay's has a pending deal to sell its nylon business to BASF SE.

New grades of Technyl were in focus at Fakuma. Technyl Red S is a high-temperature nylon 6/6/6 used in air coolers and air ducts in turbocharged auto systems. The materials can boost engine performance, engineering plastics director Gerald Durski said at Fakuma.

Technyl Blue is a blend of nylon 6/6 and 6/10 that's used in engine cooling systems. Durski said the new materials offer higher performance in tensile strength, as well as good glycol resistance.

Plastics News photo by Caroline Seidel

Jens Kaatze, Covestro AG's senior vice president and head of product management polycarbonate business.

Covestro expects above-market growth for PC business

By Shahrzad Pourriahi
Plastics News Europe

Covestro AG
Hall B4, Booth 4206

Having just celebrated its second year as an independent company, Leverkusen, Germany-based Covestro AG expects its polycarbonates business to continue to outgrow the market.

According to Jens Kaatze, who has recently taken over the commercial operations for the Europe, Middle East, Africa and Latin America region for the polycarbonate business unit, the global market for polycarbonates is expected grow at roughly 4 percent in this decade.

For the business, 2016 saw a 10.3 percent increase in volumes at 1.5 million metric tons with sales of roughly 3.3 billion euros, covering one-third of the company's total sales.

The segment, which is Covestro's second biggest after polyurethanes, saw particularly sharp increases in Asia Pacific and North America with demand from electrical and electronics among the main growth drivers.

"We doubled our capacity in Shanghai from 200 kilotons per annum to 400 kilotons per annum and were basically sold out within the first half-year, which was even unheard of for us. So we immediately went back to the drawing board and planned to expand that unit even further," Kaatze said.

The company announced its decision to add another 200 kilotons per year of capacity to the plant in May, expecting to start production by 2019.

To maintain the momentum, the Covestro senior manager said, the company is looking into expanding all its other production units around the world.

This includes measures like debottlenecking its five globally spread PC resin plants.

The procedures could include logistics improvements or enhanced wastewater treatment, which are relatively cheap but can bring about significant capacity improvements, Kaatze said.

A concern for Covestro is a recent decision by the European Chemicals Agency to list bisphenol A — a building block of polycarbonates — as a "Substance of Very High Concern."

"We take this seriously. It is a threat to any company if someone wants to regulate one of its components. What the ECHA does in this context is looking into the intrinsic properties of BPA and not its possible effects at realistic conditions," Kaatze said.

"So it is looking at the hazard of BPA per se, but is not looking at how likely it is to actually become a risk in reality," the official added.

According to Kaatze, it is a matter of thresholds, and both industry-sponsored and independent studies have shown that there is no risk for consumers coming from real-life BPA exposure.

As for bioalternatives to BPA, Kaatze said research so far has not found an alternative to replace BPA.

In terms of growing trends in the industry, lightweighting particularly within the automotive and electronics segments stands out for Kaatze.

The company purchased a start-up composites manufacturer Thermoplast Composite GmbH (TCG) in Langenfeld, Germany, two years ago and has now scaled up production of continuous-reinforced composites, which can be used for many purposes, including automotive and IT.

The production plant in Markt Bibart, Germany, has now been scaled up to a commercial level and is set to be officially started in early 2018.

While supplying to the automotive industry will take a while to be established, Kaatze first sees growth potential in IT, laptop covers and similar applications.

In addition to composites, the Covestro manager also pointed to two other major applications for polycarbonates: LED lights, where various components can be made of polycarbonates, and the advent of 5G in telecommunications.

Hamos technology helps recycle black plastics

By Jim Johnson
Plastics News Staff

Hamos GmbH
Hall B1, Booth 1308

The ever-growing use of electronics and China's decision to close its import borders to scrap plastics are two factors driving the need for processors elsewhere to handle more black plastics commonly used in those products.

And those plastics, which were once often destined for landfill disposal because of the recycling challenges they represent, are no longer allowed to be buried in the European Union.

Christian Schickle is in sales for Hamos GmbH of Penzberg, Germany, a maker of electrostatic separation technologies. He said he has witnessed the growing interest in handling black plastics from recyclers.

While the movement in Europe is driven by Waste Electrical and Electronic Equipment regulations, there are more forces at work in the trend.

"I think the thinking especially in North America is changing completely the last two years. In former years, it was very easy for customers to put the material to landfill or incineration. And nobody was really interested in color separation. Mostly the recyclers were focused on metal separation [from electronics], which was quite easy," he said.

"But, nowadays, the polymer separation becomes more and more important as the value grows up and also the prices for the polymers," he said.

Hamos markets an electrostatic separation system that charges different resins either with a positive or negative charge that then allows them to be sorted for reuse.

The company's EKS system focuses on ABS and polystyrene, two resins that account for about half of all plastics use in electronics. While those are the two resins most commonly used, Schickle said there are dozens more that also find their way into products.

With so many different plastics being used in electronics these days and their use in combination with other materials such as wood and metal, for example, the Hamos approach relies on an initial float-sink separation approach to help segregate the two main resin types.

From there, the ABS and PS are routed through the company's electrostatic approach that ultimately creates recyclate streams that are at least 98.5 percent pure.

Hariolf Jung is managing director at Hamos, and he points to National Sword, the Chinese crackdown on scrap imports, including plastics, as a key driver to advance separation in other parts of the world.

"I think there are two incidents. One is the closing of the Chinese border that no material from Europe or the U.S. or wherever can be imported to China results in the need to recycle in origin countries," he said. "The other is the value of this type of plastic is steadily increasing."

Black and dark plastics are always more common in electronics, Jung said. With a steady supply of the material available, combined with the value of the material, he said, "the payback of investment in that kind of recovery is within a short period."

Plastics News photo by Jim Johnson

Christian Schickle, from Hamos GmbH, at the firm's booth at Fakuma.

Move into plastics 'highly successful' for Nordson

By Karen Laird
Plastics News Europe

Nordson Corp. has only been in plastics processing equipment since 2012, but Ralf Simon has been in plastics a lot longer — long enough to remember the first Fakuma in 1981.

"I was at the very first Fakuma and have been attending every show since," said Ralf Simon, managing director of Nordson BKG GmbH & Nordson Polymer Processing Systems. "And it's amazing to me how much it has changed over the years. I don't think anyone could have envisioned that what was essentially a small, regional show for southern Germany, Austria and Switzerland would grow into the international event it has now become.

"I've seen customers from China here, and we just had a new customer come onto the stand from Mexico who wanted to talk about a recycling project!" Simon said.

Westlake, Ohio-based Nordson entered the plastics processing equipment sector with the acquisition of Extrusion Dies Industries LLC because it fit with Nordson's adhesive dispensing systems business. It subsequently purchased Kreyenborg Group's Kreyenborg GmbH and BKG Bruckmann & Kreyenborg Granuliertechnik GmbH companies and has now become what Simon said is a one-stop supplier of complete plastics processing systems.

Plastics News photo by Caroline Seidel

The BKG Hilon R-Type Recycling Filter from Nordson Corp.

'The move into plastics processing systems has been a highly successful one. We cooperate with end users, as well as with all the ... extruder manufacturers.'

Ralf Simon
Nordson BKG GmbH

The company continues to expand the product portfolio with new products, ranging from a robustly designed recycling filter for highly contaminated post-consumer waste to highly sophisticated, wear-resistant Xaloy plasticizing systems.

"The move into plastics processing systems has been a highly successful one," Simon said. "We cooperate with end users, as well as with all the ... extruder manufacturers."

In Europe, the company mainly sells compounding and recycling systems, as there are very few virgin material suppliers left.

"Business is good, but it's Asia where it is really booming. We are in the final deliver phase of a huge project in China: a plant that produces 3,500 tons per day of bottle-grade PET. It's about the biggest plant of its kind in the world and a milestone for us," he said. "Obviously, with a plant on that scale that runs 24/7, reliability is absolutely essential. We have established manufacturing, sales and after-sales in the region to provide the support customers like this require.

"The Asian region keeps us really very busy," he said.

Nordson Corp.
Hall A6, Booth 6109

Elastron

Continued from Page 1

other continents."

Erdogan said Elastron began compounding TPVs and SEBS materials in Turkey in the late 1990s and was one of the five initial European licensees for Shell, now Kraton's, materials at that time.

The new plant will have 30 employees and is under construction. Trial production and training of operators will star in the first quarter, with a target commercial opening in June or July, he said.

The company has had a sales office in Detroit since 2009 and will keep that location, he said.

The Atlanta investment is not the company's only international plan.

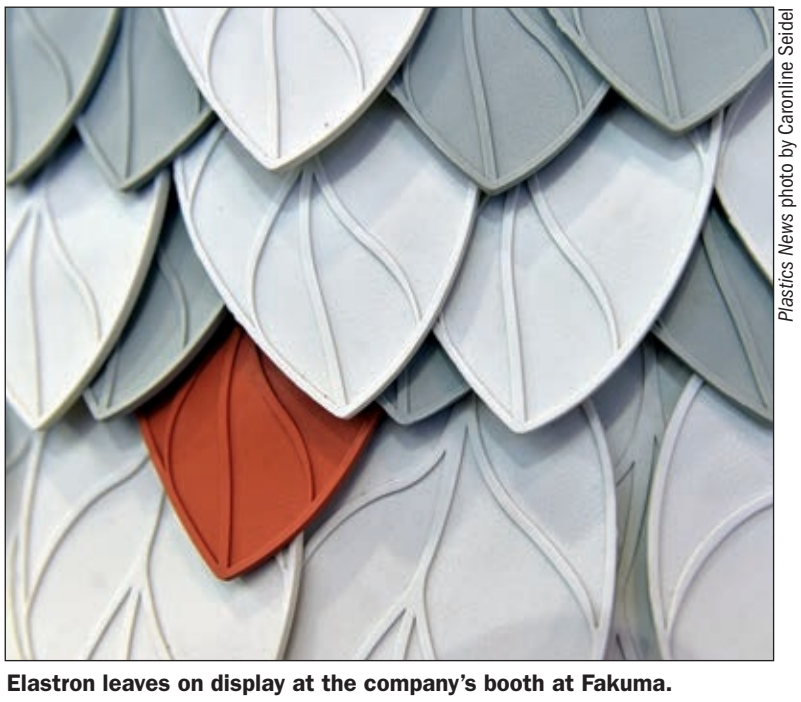
Elastron wants to build a factory in China in 2020, likely about the same size as the U.S. facility or "maybe a bit more than Atlanta because we are selling more" in China, Erdogan said.

"It is a definite plan because we are growing very fast in China," he said. The company has an office in Shanghai and a warehouse in Hong Kong.

Erdogan said the privately owned company has a capacity of 20,000 metric tons (44 million pounds) a year at its headquarters plant in Gebze, with annual sales of about 45 million euros ($53.1 million).

Elastron started in 1980 as a compounder of materials for shoe soles and moved into TPV and other more technical materials in the mid-1990s.

The auto industry is its largest end market and accounts for about 35 percent of its sales, he said. It also serves wire and cable, food packaging, appliances and medical markets, he said.



Plastics News photo by Caronline Seidel

Elastron leaves on display at the company's booth at Fakuma.

Sepro

Continued from Page 1

of directions. "People expect to have user-friendliness and services," she said.

Renaudeau said Sepro is working with Carnegie Mellon University's robotics program in Pittsburgh, near its U.S. operation, Sepro America LLC in Warrendale, Pa. The company also works with the Audiencia Business School in France and groups that promote innovation and automation in western France.

"Sepro alone could not go that quickly, so we need more support from university and research groups," he said.

'Sepro alone could not go that quickly, so we need more support from university and research groups.'

Jean-Michel Renaudeau, Sepro Group

The result is the first Sepro app, called OptiCycle, which cuts the robot cycle time by optimizing the robot's movements. Renaudeau said a key Sepro account has been using OptiCycle, which can increase efficiency by 5 percent on small- and mid-sized molding machines, and 10 percent on larger machines.

At Fakuma, Sepro is previewing another app called Live Support, expected to come out commercially in 2018. The app will let you use a smartphone or tablet to scan a QR code on the robot controller. The operator can send up to five photos, showing robot issues, and engage in a help video on the phone.

Renaudeau said Sepro believes Industry 4.0 is more than just connectivity between systems.

"To us, Industry 4.0 demands that people, machines and companies 'connect' in much more significant and powerful ways, ways that allow them all to perform to their highest potential," he said.

Plastics News photo by Caroline Seidel

An employee uses the Sepro OptiCycle at Fakuma.

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1155 Gratiot Ave., Detroit, Mich. 48207
Tel. 313-446-6000 www.plasticsnews.com

Plastics News
Plastics News Europe

Vice President/Group publisher
Brennan Lafferty

FAKUMA ON-SITE STAFF
Editor Don Loepp, dloepp@crain.com
News editor — international
Steve Toloken, stoloken@crain.com
Senior staff reporters Bill Bregar, Frank Esposito
Staff reporters Jim Johnson, Audrey LaForest, Karen Laird, Shahrzad Pourriahi, David Vink
Photographer Caroline Seidel

FAKUMA PRODUCTION STAFF
News editor Rhoda Miel, rmiel@crain.com
Assistant managing editor Jeremy Carroll
Art director Jessica Jordan
Copy editor/reporter Jordan Vitick

INTEGRATED MARKETING
313-446-5869
Director of Brand User Experience – Global Polymer Group Upasna Kakroo
Marketing manager Elizabeth Raetz
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ADVERTISING
313-446-6783
Sales director, Plastics News
Patrick Cannon, pcannon@crain.com
Sales director, Plastics News Europe
Matthew Barber, mabarber@crain.com
Regional managers
Peter Bianchi (Southern)
312-265-6484 pbianchi@crain.com
Linda Hickey (New England, Northeast)
330-576-6536 cell 330-592-4857
lhickey@crain.com
Gary Judy (Southeast, mid-Atlantic)
410-819-0511 gjudy@crain.com
Ed Rich (Midwest, Eastern Canada)
330-869-0375 erich@crain.com
John Hickey (Western) 260-437-8502
jhickey@crain.com
Sales representative Betsy Connolly (Non-Endemic and Processor sales)
248-770-8315 bconnolly@crain.com
Benelux, France & Scandinavia
Arthur Schavemaker/Kenter & Co.
tel. 31-547-275005, arthur@kenter.nl
Greater China Lago Poah Yang
M +86 138 1643 7421
lagopoah.yang@bridgemedia.cn
Germany, Austria, Switzerland & Eastern Europe
Randy Krings/ EuroMedia Connect Ltd.
tel. 49-611-5324-416, pn@emcmedia.de
India representative Bhupal Potdar
tel. 91-98211-51035, bhupalpotdar@gmail.com
Italy representative Fabio Potesta
tel. 39-10-5704948, info@mediapointsrl.it
Japan representative Yutaka Mogi/Tandem Inc.
tel. 81-3-3541-4166, y.mogi@tandem-inc.com
Classified sales manager Ed Rich
330-869-0375 erich@crain.com
Classified sales representative Brooke Stender
330-865-6117 bstender@crain.com
Administrative assistant Lindsay Crawford
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