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The NEW generation of cutters for profiles



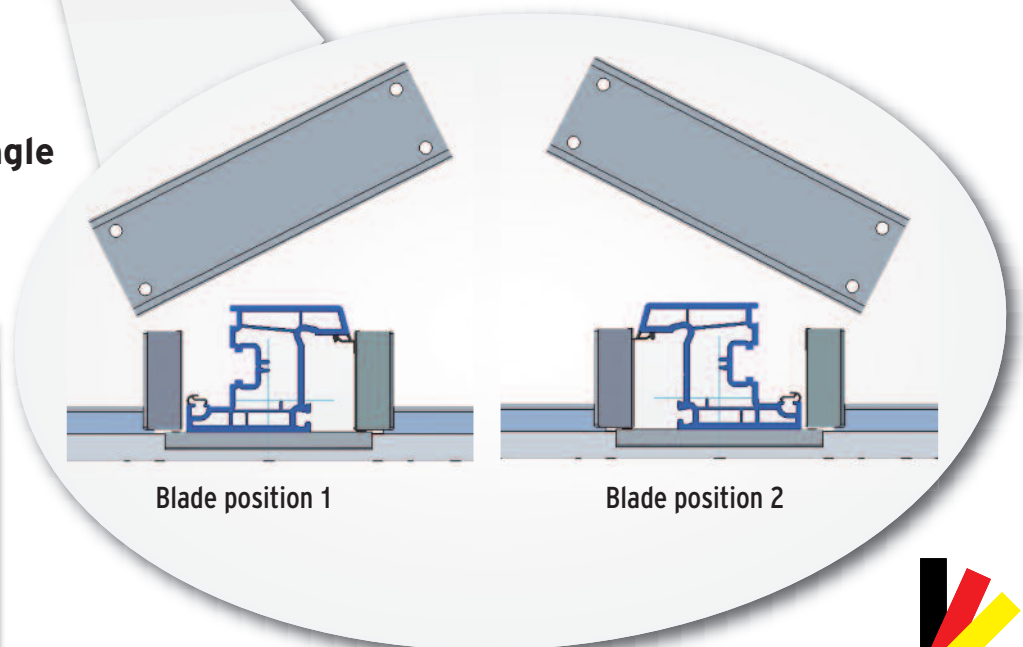
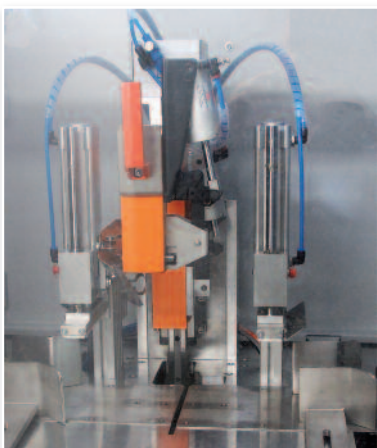
- Mirrored changing of the cutter angle during running production
- For optimised cutting of the respective profile
- Changing within 10 to 15 seconds, between two cuts
- Without loosening screws, by hand, with pneumatic clamping device using two retaining cylinders
- Sensational price thanks to increasing demand and manufacturing in large quantities

The cutter was manufactured for the first time in 1998 and in constant use throughout the world. They offer the absolute best cutting quality for glass strips, small profiles, main profiles and technical profiles.

Additional devices such as automatic film wrapping, measurement wheels for precise length determination or lettering with inkjet or laser printers can be attached.

PTW-200 changeable cutting angle

Cutting Unit



Blade position 1

Blade position 2



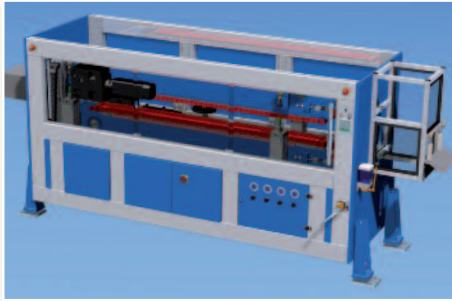
EQUIPMENT FOR EXTRUSION



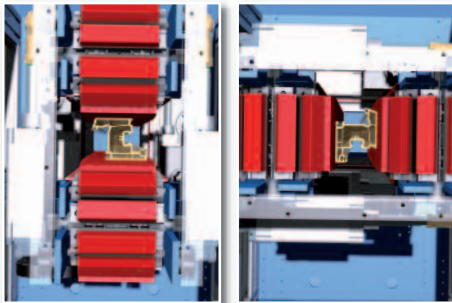
FOR PROFILE EXTRUSION LINES



Calibration table KTS 01,
rear



Caterpillar
Haul off



Haul off
rotating 90°



PRO 63
automatic stacker

FOR SHEET EXTRUSION LINES



Calender



Roller withdrawal AZ 8,
outlet side



Slitting RB 2 with four
sawing stations



Transverse separating
cutter QSS, inlet

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FKT mainly assembles fabrics, nets, aluminum profiles - and plastic injection moulding parts - into complex assemblies at the location Pförring near Ingolstadt. In the last few years the injection moulding sector was completely rebuilt, in September 2015 there were eleven machines up to 3000 kN clamp force in use, further expansion is already being planned.

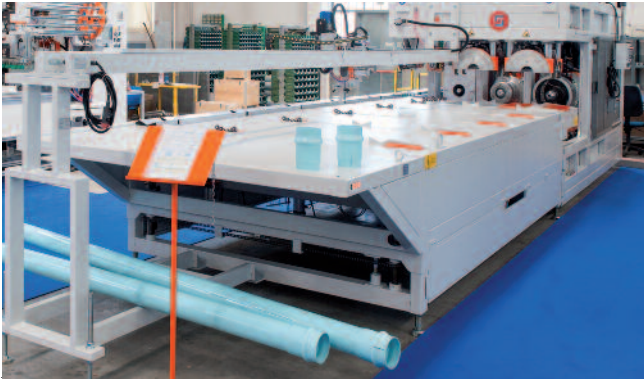
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The opening of the new EREMA UpCentre® on Friday 20 November 2015 in Gunkskirchen (not far from the company's headquarters in Ansfelden, Austria) generated interest throughout the value chain of the entire international plastics industry

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Bi-oriented PVC pipes are recognized for their considerable savings of raw materials while maintaining the same mechanical resistance and application in comparison to standard PVC-U pipes.

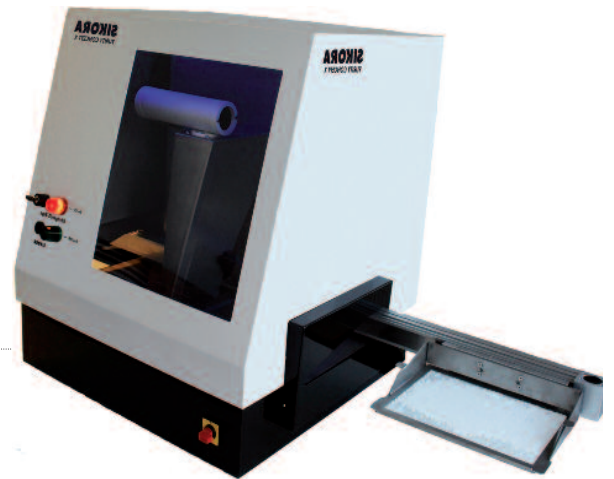
The number of PVC-O pipe extrusion lines is increasing in several areas of the world, but especially in the Americas and Australia.

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SIKORA presents its new and pioneering models of the PURITY CONCEPT Systems. With that, the company offers an outlook on the varied potential of its systems for online and offline inspection and analysis of plastic material.

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China's leading chemicals group, China National Chemical Corporation ("ChemChina"), has agreed to acquire KraussMaffei Group from Onex Corporation ("Onex") for a cash enterprise value of €925million. The transaction is subject to closing conditions including customary regulatory approvals.

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▶ Expo Centre Sharjah
www.plastivision.ae

Wood-Plastic Composites 2016

07. – 09.03.2016,
Vienna / Austria
▶ Hotel Savoyen
www.amiconferences.com

JEC World

08. – 10.03.2016,
Paris / France
▶ Exhibition Center
www.jeccomposites.com

wire 2016, Tube 2016

04. – 08.04.2016,
Duesseldorf / Germany
▶ Messe Duesseldorf GmbH
www.wire.de, www.tube.de

CHINAPLAS 2016

25. – 28.04.2016,
Shanghai / P.R.China
▶ Adsale Exhibition Services Ltd
www.ChinaplasOnline.com

An eventful and successful year

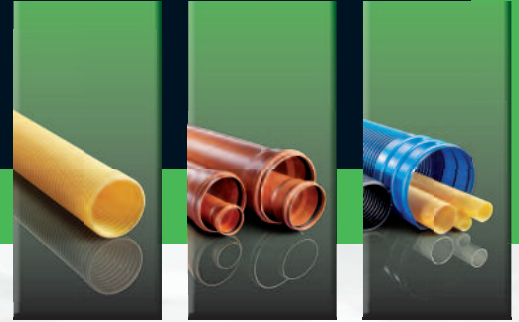
■ BST ProControl GmbH looks back upon equally eventful as well as successful months. The company, specialized in the quality control and measurement of flat materials, decided to close its subsidiary in Rengsdorf Germany, immediately at the beginning of 2015. All employees were transferred to the BST ProControl Headquarters. Michael Hecht, Managing Director of BST ProControl explains: "This decision, and subsequently the deliberate choice to concentrate solely on our location in Wenden, has proved to be the right move. Since all the teams operate now under one roof, we were able to optimize our processes and facilitate the communication between the different departments." This is one of the main reasons for the sales increase of 30% during the last few months. The economic success has been obtained also by using the existing synergies, which are given due to the allegiance to BST elmat. Michael Hecht elaborates contently: "We were even able to exceed our business goals set for 2015". He adds that the many joint projects with the parent group contributed, among other things, to the company's success. Furthermore, BST ProControl was able to expand its back office. The office was reorgani-



zed and attends now to more than 3000 systems worldwide. The 24/7 service hotline is also used more frequently by customers. As a result, the company provides an interface between the customers and the in-house service technicians. In this way, an increase in transparency is given and the technical performance, the controlling as well as the evaluation of the performed work run even faster and more smoothly. The positive response speaks for it-self.

The in-house developed software solution INDICON XL is especially well received on the product site. The solution does not only provide fast response possibilities and an easy handling, but offers also state-of-the-art control and regulation possibilities. In combination with the sophisticated sensor solutions, an economical and efficient production is ensured. Michael Hecht sums up: "We were furthermore able to expand our portfolio in the field of non-radiometric sensors. In this way, we are responding to a market trend that will surely secure us a good order position in the upcoming year."

Pipe extrusion



The new DS 32 D series: Maximum performance for PVC pipe extrusion

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High Performance
DS 32 D Series

Once again WEBER set new standards in extrusion technology. The new extruder series DS 32 D, equipped with powerful drive technology and innovative screw technology, provides new impetus for PVC pipe manufacturing.

Advantages of the *High Performance* DS 32 D series

- Compact, robust gearbox technology in WEBER quality
- High outputs even with smaller L/D ratio's
- More flexible applications through larger range of output
- Easy processing of high content PVC plastics
- Improved product quality even when using recycling materials
- Processing of cold mixtures



www.hansweber.de

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Pipe extrusion



NE 7.40

The NE 40 D series: Maximum performance for polyolefin pipe extrusion



WEBER have been building grooved bush extruders for more than five decades. A unique *High Performance* range was developed especially for extrusion of HDPE and PP pipes.

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BASF to expand compounding capacities for engineering plastics in Europe

■ BASF is expanding the compounding capacities for engineering plastics in Europe. Presumably from 2017 it will be possible to additionally produce up to 70,000 metric tons per year of Ultramid® (PA: polyamide) and Ultradur® (PBT: polybutylene terephthalate) at the Schwarzheide site, Germany. Around 50 new jobs will be created.

This is another step in the capacity expansions which BASF is undertaking because of the increasing demand for engineering plastics around the world. BASF's global compounding capacity for PA and PBT will then be more than 700,000 metric tons per year.

Already in the middle of this year, BASF in Shanghai more than doubled its compounding capacities for the two materials and also increased the capacities for thermoplastic polyurethane (TPU). In Korea a plant for compounding Ultramid® and Ultradur® started operations in October.

"With this expansion we strengthen our leading position in engineering plastics in Europe", says Dr. Melanie Maas-Brunner, head of BASF's Performance Materials Europe division. "By investing in

highly efficient plants we help our customers to meet the increased demands on the materials, e.g. for large-volume and globally manufactured components in the automotive industry. As a reliable partner we thus support the growth of our customers and help them to overcome challenges such as lightweight construction and emission reduction with innovations."

The engineering plastics Ultramid® and Ultradur® are processed into high-performance components in the automotive industry, the electrical and electronics sector as well as in the construction and furniture industries. Examples of such components are car seat structures, oil pans, engine mounts, sensors and connectors, chairs and fixings. The current innovations include the world's first rear axle transmission cross beam in the Mercedes S-class, the Belleville design chair from Vitra, and also power semiconductor modules from the company Semikron.

► www.basf.com

EREMA GmbH founds subsidiary in Russia

■ EREMA GmbH is all set to announce the founding of the subsidiary "OOO EREMA" at Interplastica Moscow from 28 to 31 January 2016 which will see it investing in its presence in the Russian-speaking area. Kalojan Iliev, who can turn to many years of experience in the CIS area and has been responsible for this territory for EREMA for some time, will be appointed Managing Director of OOO EREMA. The 268 million inhabitants of the CIS member states use around 9.1 million tonnes of plastic every year. Additionally, some 7 million tonnes are processed to make plastic products and Austria supplies in the region of 1 billion euros of plants and machinery annually to Russia alone. Kalojan Iliev, Managing Director of the new subsidiary OOO EREMA explains: "With the foundation of its own subsidiary, EREMA is strengthening its presence in what is a very large territory which, due to its history as the Soviet Union and Russian as a widespread language, represents a region of its own. This means that EREMA is available as a central, Russian contractual partner with local presence and this is not only an advantage in terms of managing the purchasing process, our customers will also benefit from improved service." Together with his team, Kalojan Iliev will be responsible for the further development and marketing of EREMA in the CIS region and support activities of the local representatives in the individual countries. The EREMA representatives Irina Zubkova (Moscow) and Valentina Gritschina (Kiev) who are known in the market will continue to act as local sales partners. Furthermore, the established offices of TEXTIMA in Belarus, the Baltic states, Ukraine, Kazakhstan, Uzbekistan, Azerbaijan and the Russian offices in St. Petersburg, Moscow and Ufa will likewise be available for local market support.

EREMA Group continues to grow

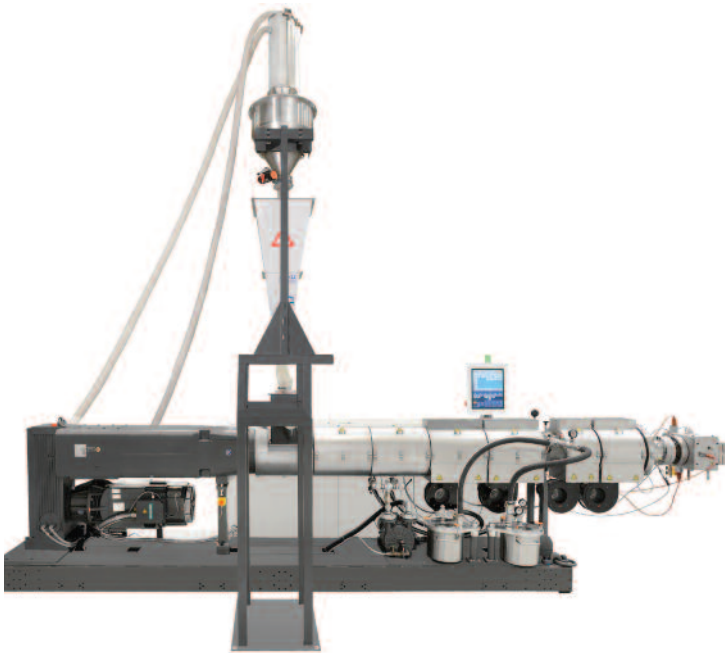
The EREMA Group expanded already in January 2015 with the foundation of PURE LOOP, a new sister company of EREMA and 3S. One year later, in January 2016, EREMA is now founding a subsidiary of its own within the EREMA Group. Besides EREMA China and EREMA North America, OOO EREMA in Moscow, Russia, is now the third subsidiary of the world's leading producer of plastics recycling systems.



Kalojan Iliev will be appointed Managing Director of the newly founded "OOO EREMA" in Russia in January 2016 (Photo credit: EREMA)

► www.ereama.at

The WPC Conference – more international than ever



*“Simply Housing” project in the Philippines
(Photo © Simply Housing)*

battenfeld-cincinnati offers a complete extruder series for WPC/WFC processing. With the new degassing unit it is possible to offer a maximum of process stability and high outputs with little maintenance

■ There is no WPC conference that is as international as the established AMI Conference, both with regard to the attendees and the speakers. The Wood Plastic Composites Conference 2016 will be held from 7 to 9 March in Vienna, Austria. As in the past, the headline sponsor is extruder specialist and WPC pioneer battenfeld-cincinnati, which will invite participants to a very special demonstration at its technical lab this year. Since 2002, the British company Applied Market Information Ltd. (AMI), Bristol, has brought together attendees from more than 30 countries and all continents to inform them about the newest technical innovations, market trends and market opportunities. Products made from wood plastic composite materials have been in demand for years. The market volume has shown

consistently increasing growth rates, despite the cyclical fluctuations that have been felt in this segment as well. But the potential has not yet been fully exploited by far, and there is a great demand for discussion and information.

That is why the organizer is particularly proud to present speakers not only from a variety of European countries, such as Switzerland, Spain, Belgium and Austria, but also from the USA and India. Moreover, the topics on the agenda offer useful information for attendees along the whole value chain – from processing, to production, up to sales.

battenfeld-cincinnati has already installed more than 260 extrusion lines for WPC processing worldwide. Functionality, easy handling, process stability and cost efficiency are the core features of all customized systems.

Apart from tailor-made downstream equipment, the machine manufacturer offers single screw and conical twin screw extruders for producing small technical profiles, as well as parallel twin screw extruders for highest outputs.

A traditional feature of the WPC Conference is the technology demonstration that headline sponsor battenfeld-cincinnati gives at its technical lab in Vienna.

This year, the focus will be on WPC profiles with which houses can be built simply and quickly.

These can be set up in conflict areas to provide accommodation for refugees, or to serve as mobile hospitals or administrative buildings.



One of the first WPC houses for emergency housing that was shown at battenfeld-cincinnati in 2011

After the renovation

■ Herbold Meckesheim GmbH in Meckesheim, manufacturer and supplier of size reduction equipment, consisting of 150 employees, launched their completely rebuilt production hall at the beginning of October. The 1400 m² crane hall was built in 1962 and only used as a warehouse during the last decades. The production hall contains 6 column-mounted slewing cranes at 12 different sites. Machine parts weighing up to 3 t can be mounted simultaneously. The heavier parts and finished machines are conveyed by a gantry crane.

This renovation is part of a larger, new construction and rebuilding project. With the investment 5 million EUR, the production will be modernized and a new technical lab will be built. The technical lab will be used for demonstration and trial purposes of the machines that are part of Herbold's product range consisting of machines and plants for recycling plastics. By size-reducing, washing, separating, drying and densifying, clean product waste and used, mixed and contaminated plastics from trade, commerce and yellow bags are recycled so they can be used again. Each kilogram of



Completely renovated production hall Herbold Meckesheim

plastics that is recycled by Herbold's customers saves 2 kilograms of crude oil and between 1.5 and 3.2 kg of greenhouse gases.

Two-thirds of production is destined for export as is the case with many machine factories based in Baden-Württemberg. The machines and plants are mainly exported to Europe, North and South America, North Africa and Asia.

www.Herbold.com

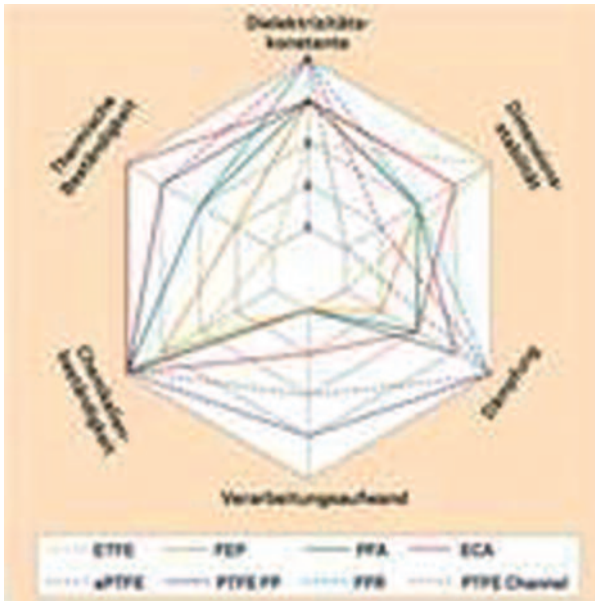
At Wire 2016 The Chemours Company presents its broad portfolio of Teflon™ resins for the wire & cable industry

■ The Chemours Company ("Chemours") (NYSE: CC), a global chemical company with leading market positions in titanium technologies, fluoroproducts and chemical solutions will be exhibiting its wide range of fluoroplastics for the wire and cable industry in hall 17, stand D66 at Wire 2016. Further additions to the ECCtreme™ ECA family, a class of meltprocessable perfluoroplastics which combines the advantageous mechanical, electrical and chemical properties of PTFE with high thermal stability. For instance, at a thickness of 0.75 mm, the material has an RTI (Relative Thermal Index) listing of 300 °C according to UL 746B. Thanks to its continuous service temperature of 300 °C, ECCtreme™ ECA thus exceeds the previous upper limit of 260 °C for conventional perfluoroplastic insulating materials. ECCtreme™ ECA grades can be pro-

cessed on conventional extrusion equipment for high-temperature fluoroplastics using standard processing conditions. Downstream heat treatment (epitaxial co-crystallisation) improves the material's thermal resistance and offers beneficial mechanical properties, such as long-term tensile modulus and improved stress cracking resistance. The material is suitable for wire and



Key solution topics are highest service temperatures of up to 300 °C, miniaturization, superior data transfer, weight savings as well as patented PTFE Channel Extrusion Technology providing improved electrical properties



Wire & cable property performance of various fluoroplastics and technologies

cable insulations, which are exposed to extreme service conditions such as very high temperatures, elevated pressures and corrosive surroundings. Typical fields of application are the oil and gas industry, aerospace, energy generation, semiconductor fabrication and the automotive industry. "This development is our response to industry's challenge to offer a high-temperature, melt-processable perfluoroplastic", explains Frenk Hulsebosch, Global Product Manager Melts Fluoroplastics at Chemours Fluoropolymer Solutions. Further products presented on the stand will include Teflon™ fluoroplastic foam resins (FFR) produced using patented Airquick technology. Cables made with foamed fluoroplastic insulation have a lower signal return loss than conventional data cables, so enabling miniaturization and weight savings thanks to lower density and thinner insulation thicknesses. One current example is the new KL24 Star-Quad data cable developed for the aerospace industry by Draka Fileca, Sainte-Geneviève, France which won a DuPont Plunkett Award in 2013. At identical diameter, it is up to 25 per cent lighter than previously used quad cables and enables a reduction in aircraft fuel consumption, so reducing environmental impact.

► www.chemours.com

New Air Vent

■ Key Plastics Löhne supplies complete assemblies to the automotive industry. For the VW Touran, the company developed a new air vent with longer slats than in any other vehicle type. The Hamburg-based plastics distributor K.D. Feddersen provided support in the product selection. The material for the new slats had to have a good surface finish yet still possess a high degree of stiffness, while also offering good value for money. For all other models, Key Plastics already used a 50% glass fibre reinforced PA 6 compound with reduced moisture absorption from AKRO-PLASTIC. In this case, however, the stiffness was inadequate. Christoph Gerling, Business Development Manager at K.D. Feddersen consequently recommended increasing the level of reinforcement to 60%, and the very first test using AKROMID® B3 GF 60 4 RM-M satisfied the customer's requirements.

AKROMID® RM-M (mechanical types) is suitable as a design material for components subject to high mechanical stress. This product range offers only reinforced compounds with varying glass fibre content in three designs: standard, surface-modified ("9") and with increased chemical resistance ("4"). The material is a blend of polyamide and PBT, combining the favourable properties of both polymers: the high degree of stiffness and low water absorption of PBT and the large processing window and excellent surface finish of the polyamide. Precisely these properties were of key importance for the implementation



Low moisture absorption results in good dimensional stability, thereby ensuring consistent operating forces during adjustment of the longer slats

of the new design with significantly longer slats. The reduced moisture absorption (1%) is on par with partially aromatic blends and thus enables a design with low tolerances. A further advantage of the material is that the tensile modulus is only slightly reduced and the slat therefore exhibits a consistently high degree of stiffness under a wide range of climatic conditions, thereby enhancing the value of the design.

► www.keyplastics.com

KRAIBURG TPE Americas Announces Relocation and Expansion of Manufacturing Facility



KRAIBURG TPE Americas grew and expanded organically to the new location. The facility will house a third production line to increase their capacity. The company also announces a newly unveiled sample line that streamlines lead times and production for customers who want to begin a working business relationship with the custom thermoplastic elastomer manufacturer.

The facility is designed to house three production lines and seventy-five employees. There is additional capacity to expand to twice the original size in the future to house up to eight production lines and over one hundred employees. The company anticipates the facility will be suf-

■ KRAIBURG TPE Americas announces the relocation and expansion of their manufacturing facility in Gwinnett County, GA to increase their production of product lines for automotive, consumer, industrial and medical applications.

KRAIBURG TPE Americas, custom thermoplastic elastomer manufacturer, announced the grand opening of their manufacturing facility in Buford, GA. Their relocation and expansion in Gwinnett County provides the growing organization with the ability to provide consistent production of their THERMOLAST® K, THERMOLAST® A, COPEC® & For Tec E® product lines for automotive, consumer, medical and industrial applications.

The new 70,000 square foot regional manufacturing facility will be relocated from Duluth to Buford, GA on 12.3 acres in the Hamilton Mill Business Park on Hamilton Mill Road. The company expects an additional 9,000 ft² to be completed in 2018. The facility will house the Operations, Sales & Marketing, Product Development, Controlling and IT departments. "The new facility represents another great milestone in KRAIBURG TPE history as well as our clear and long-term commitment to our customers and partners in the American markets", says Franz Hinterecker, CEO.

The privately held company adds value to the region and country by manufacturing material in the U.S. and by also selling material across the US, while exporting to the Americas. They also have a product development team on site that focuses on innovation and development of their product offering.

"Today's grand opening marks a milestone event in our company's history, and also reinforces our commitment as an international leader within the plastics industry," said Jeff Frankish, Managing Director for KRAIBURG TPE Americas. "Making this investment in the Atlanta area also reflects the confidence that we have in leveraging the workforce talent, economic infrastructure and resources available within Gwinnett County."



ficient to handle their needs in North America for the next 20-30 years. KRAIBURG TPE Americas estimates they will add an additional nine employees prior to the move from their current location. The company forecasts an increase in the number of jobs available within their company to four over the next two years with longer-term capacity to handle over 100+ employees.

Their current ISO certification includes ISO 9001 and ISO 14001, which will be extended to the new Buford, GA location with a plan to add ISO 50001 (Energy Conservation) certification by the year 2018. The facility plans feature several environmental and energy management aspects, including natural lighting via skylights, motion-sensitive lighting systems, LED lighting and four electric vehicle charging stations. The company intends to add solar panels to the roof by 2020.

KRAIBURG TPE is a German headquartered organization with thermoplastic elastomer production facilities in Germany, the US and Malaysia. The US facility supplies customers nationwide, and in Central & South America.

► www.kraiburg-tpe.com

DSM to boost capacity of Akulon XS for flexible packaging films

■ Royal DSM, a global science-based company active in health, nutrition and materials, today announces that the company is expanding production capacity for Akulon® XS at its facility in Emmen, the Netherlands. The capacity increase is scheduled for completion in the first quarter of 2016. It will meet the strong-growing demand for Akulon XS, a new polyamide developed specifically for blown films used in flexible food packaging. Financial details will not be disclosed.

The barrier properties and mechanical strength of conventional PA6 are ideal for flexible films used in food packaging. However, its high crystallization speed can be restrictive. Processors have to either compromise on productivity, or blend with special amorphous polyamides or polyamide copolymers, reducing cost efficiency and properties.

Akulon XS from DSM resolves the issue as it crystallizes much more slowly than conventional PA6 giving processors improved performance and productivity gains without the need for expensive blending. This makes it easier and more cost effective for processors to make blown films for flexible food packaging while retaining the unique barrier and mechanical properties of polyamide 6.

Key benefits include mechanical strength, puncture resistance and excellent barrier performance. Akulon XS also enables down auging to create thinner films further reducing weight, cost and waste.

► www.dsm.com/packaging-graphic-arts

ChemChina to acquire KraussMaffei Group for €925million



■ China's leading chemicals group, China National Chemical Corporation ("ChemChina"), has agreed to acquire KraussMaffei Group from Onex Corporation ("Onex") for a cash enterprise value of €925million. The transaction is subject to closing conditions including customary regulatory approvals. The KraussMaffei Group is a leading global manufacturer of high-quality machinery and systems for producing and processing plastics and rubber. The transaction is expected to accelerate the growth of the company considerably in light of potential business synergies. ChemChina together with GUOXIN International Investment Corporation and AGIC Capital will make this acquisition.

ChemChina is a strategic and long-term oriented investor

"With ChemChina, we have found a strategic and long-term oriented investor who has been interested in our Company for many years," said Frank Stieler, CEO of the KraussMaffei Group. The KraussMaffei Group will continue to operate in its current corporate structure.

"We are strengthening our company with one of the leading global engineering groups, encompassing a 178-year corporate history. In doing so, we expect that KraussMaffei Group will maintain its identity and independence," said Jianxin Ren, Chairman of ChemChina. "We are investing in the Company's strong

management team and its technologi-

cal expertise, which we believe will benefit our Chinese subsidiaries and position the chemical machinery business of ChemChina, which build and sell equipment for the rubber and chemical industry, to become a pioneer in achieving the "Made in China 2025" program which

aims to enhance Chinese industry. The growth potential of the KraussMaffei Group is tremendous, especially through improved access to the Chinese market, which we can make possible. We expect trends in the automotive industry towards advanced manufacturing and lightweight components will provide a huge development opportunity for the high-end plastic injection molding

industry. Together, ChemChina and the KraussMaffei Group will be well positioned for future growth," added Jianxin Ren.

Growth to accelerate considerably

"Following Onex's acquisition in late 2012 KraussMaffei Group has achieved strong growth and had a very successful year in 2015. As part of ChemChina, we expect to considerably accelerate our growth strategy, especially in China and Asia, and to further strengthen the Company in Germany and Europe,"

emphasized Stieler. In China, the Company is expected to benefit in particular from the trend towards higher quality and sustainability. The machines and systems of the three brands - KraussMaffei, KraussMaffei Berstorff and Netstal - are especially suited to meet more challenging customer requirements. As a result of the transaction, the KraussMaffei Group will be able to accelerate its planned expansion in China.

Locations remain – increase in jobs planned for Germany in 2016

"Accelerated growth will have a sustained positive impact for the Company globally. Our Company has a strong foundation and we will continue to build on our strengths, and create new jobs around the world," said Stieler. Our brands KraussMaffei, KraussMaffei Berstorff and Netstal will always stand for highest quality and sustainability. The KraussMaffei Group's headquarters will remain in Munich and the operating and corporate responsibility for the Company will stay in Europe. This applies in particular to production, technology, patents as well as research and development. The KraussMaffei Group will continue to operate as a German company with a Supervisory Board based on co-determination. All existing collective agreements and location-based commitments will remain unchanged. At present, the Company has approximately 4,500 employees globally, of which 2,800 are based in Germany. The Company intends to increase its workforce in 2016, including in Germany.

Works council and IG Metall welcome the change in ownership

The employee representatives and IG Metall welcome the planned change in ownership. "We consider the transaction as a significant opportunity for the KraussMaffei Group and its employees. We are confident that through further growth the existing jobs in Germany and Europe will be secured and expanded," commented Peter Krahl, Chairman of the works council of the KraussMaffei Group. IG Metall is also supportive of the change in ownership. "This change comes at the right time for the Company and offers a good perspective for further growth," said Horst Lischka, Company Representative of IG Metall responsible for Munich and member of the Chairman's Committee of the Supervisory Board of the KraussMaffei Group. "I am



(left to right): Ting Cai, Chairman and CEO of the China National Chemical Equipment Co. Ltd. (CNCE), Dr. Frank Stieler, CEO of the KraussMaffei Group, and Chen Junwei, CEO of the ChemChina Finance Co. Ltd

pleased that the German principle of co-determination is also enjoying greater appreciation abroad as a foundation for sustainable corporate success," he added.

ChemChina focuses on management expertise as well as on quality and value of the acquired companies

ChemChina is China's largest chemicals group, having generated revenues of around €37 billion in 2015 with approximately 140,000 employees, of whom 45,000 are located outside China. The group operates internationally and has a global expansion strategy, having acquired or invested in companies in Italy, France, Norway, the UK and Singapore in the last few years with the most recent acquisition being the high-end tire manufacturer Pirelli. When it comes to equity investments, ChemChina focuses on exceptional management expertise as well as the quality and value of the acquired companies. Following Onex's acquisition in 2012 KraussMaffei Group has demonstrated sustained improvement in its financial and operational performance. In 2014, the Company generated revenues of approximately €1.1 billion and is expected to achieve year-on-year revenue growth of approximately 10 percent for 2015. "We thank Onex for constructively supporting our Company over the last three years, which has allowed us to achieve record performance in 2015 and has positioned the Company well for the future," commented Stieler.

"Over the past several years we've worked closely with KraussMaffei Group's management team to improve the performance of the company, further strengthening its leadership position in the global plastic and rubber processing industries," said David Mansell, a Managing Director of Onex. "We'd like to thank all of KraussMaffei Group's employees and management for their dedication and hard work," added Mansell.

Hot and colored

■ Thermo-chromic effects, i.e. temperature-dependent color changes, are very important in the evaluation of the color of plastic products. Since no basic research has yet been conducted on this topic the German Plastics Center SKZ is starting a project to investigate those effects in detail.

Aside from base polymers, modern plastic compounds consist of complex mix-tures of colorants and functional additives, which adjust the characteristics of the material as required. Aside from the desired characteristics, the combination of different substances also generates unintended effects. These are particularly unpleasant in terms of visual aspects due to the exceptionally high quality expectations prevailing in this area.

However, thermo-chromic effects occur in inline and on-line quality control of optical characteristics, which make quality assurance considerably more difficult. For a better understanding of these effects and to establish compensation measures for quality assurance in the future, the SKZ is conducting basic research on these topics.

The colored compounds used in the plastics industry are processed at temperatures up to 300 °C. During the cooling, the products display different but unambiguous and specific color behavior. The predictability of the color appearance of the final products has to be enabled through investigating the thermally-



(Picture source: Damianosullivan)

induced color changes. The superimposition of different effects, such as crystallinity, thermo-chromism and the light scattering behavior of further additives, is particularly challenging. By researching these effects by means of scientific methods and the transfer into application-oriented measurement devices, the project, which is funded by the German Research Association (DFG) becomes even more relevant.

The project "Investigating the thermo-chromic behavior of polymers, colorants and resulting compounds" is funded by the DFG under project number BA 1841/26-1. We would like to thank for the financial support.

► www.skz.de

Bespoke dessert pack from RPC Superfos wins a worldstar

■ A bespoke dessert packing solution developed by RPC Superfos for Finnish dairy producer Valio Ltd has been awarded a WorldStar 2016, the pre-eminent international packaging awards organised by the World Packaging Organisation (WPO). The pack, for Valio's lactose free dessert Valio Eila® cream pudding with fruit sauce, features a special release mechanism that makes it possible to serve the pudding and sauce on a plate within seconds. The consumer only needs to take off the sealed foil, turn the pot upside down and squeeze the bottom a few times. This makes the pot break in three places, and as the air enters, the pudding and the fruit sauce gently come out. The result is a decorative instant dessert on a plate and an enhanced consumer experience.



Juhana Pilkama, Packaging Development Manager at

Valio Ltd. says: "We are absolutely delighted that our pack from RPC Superfos has won a WorldStar Award 2016. It is the result of a dedicated team effort and it is a moment of accomplishment that everyone involved truly enjoys."

The Valio Eila® cream pudding in the ready-to-serve dessert pack has been a huge success. According to Valio Ltd, sales have exceeded expectations from the beginning.

"It is crucial to be innovative and to serve our customers in the best possible way," comments Per Sollenby, Sales Director Food, RPC Superfos Region Nordic. "The award shows that we are up to the challenge and that the RPC Superfos packaging solution is an example of international packaging excellence. We are all very proud."

Judging for the WorldStars took place in October 2015 in Mumbai, India, when representatives from 17 packaging associations, all members of WPO, judged 293 packaging projects from 35 countries. To win a WorldStar award, a pack must have won a national or multi-national competition, recognised by WPO. In autumn 2015, RPC Superfos' bespoke dessert pack was honoured with a Scanstar in the Nordic packaging competition.

► www.rpc-superfos.com

New USYS IPCe Data Acquisition, Processing and Display Systems

Top: Optional LCD touch screen;
Below: USYS IPC1e (left)
or USYS IPC 2e (right)



Zumbach Electronics has developed process monitoring, control and data acquisition systems for the past 58 years. They are well known for their focusing on reliable and maintenance-free systems, the USYS processors are used worldwide for the processing of data.

Experience shows that the USYS series is preferred for the modular approach when a configuration according to customer specifications, support and actualisation is to be simplified.

With Zumbach's concept of modular extension modules, the customer invests only in what he really needs to match the required measurement and control challenges, and thus reaching quality requirements.

Different modules are available to cover any challenge and provide any solutions for applications such as sheathing and core line extrusion with JACKETMASTER, data communication and coax cables with CELLMASTER, WALLMASTER for wall thickness, concentricity and OD measurement and control of any tube, pipe, cable. Special BARMASTER software offers solutions for centerless grinding, bar peeling as well as any other cold steel/metal application.

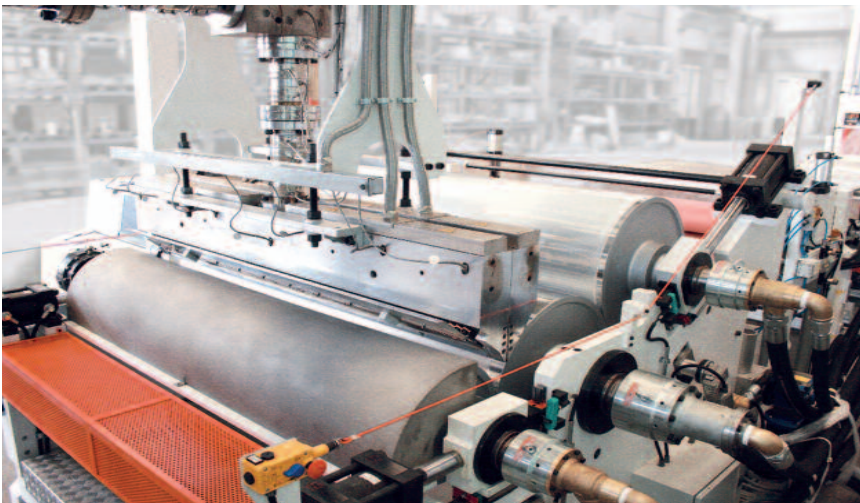
Flexible, the processors with CPU's, E/A card and process-speci-

fic intelligence from our extensive software library can be integrated into almost every process and production line (USYS Web server), USYS data log, USYS report manager, OPC server software.

The economic and space saving USYS IPCe hardware complements the USYS family of processors. It offers the flexibility to mount the processor in a convenient location while mounting the LCD touch screen at a more appropriate location for the operator.

www.zumbach.com

AMUT GROUP: The 360° Partner for plastics packaging



AMUT GROUP is a solid Italian hub with a strong productive and financial organization consolidating a leading role in the international scenario as manufacturer of plastics packaging solutions.

Boosting a reputation on custom-made and turnkey projects, AMUT GROUP turns to be an unmatched supplier offering the most complete range of machinery for the plastics extrusion, thermoforming, recycling and printing/converting process.

AMUT GROUP and its companies cover completely the plastic lifetime starting from its recovery and then passing through extrusion, thermoforming or

even flexo printing to be transformed into the final product. Designing and manufacturing 100% excellence of the made in Italy.

After taking over the Dolci Extrusion & Bielloni company, operating since last year as AMUT DOLCI BIELLONI, AMUT GROUP is able to offer to its customers also flexible packaging solutions:

- cast and blown lines for multilayer films, in particular blown lines up to 9 layers for barrier, technical, medical and lamination films, and cast lines for stretch, diapers, PP, breathable and masking films;
- single, tandem or multiple stations coating lines;
- printing machines with up to 10 colours gearless flexo presses;
- solventless or multisystems laminating machines;
- high speed and fully automatic slitter rewinders.



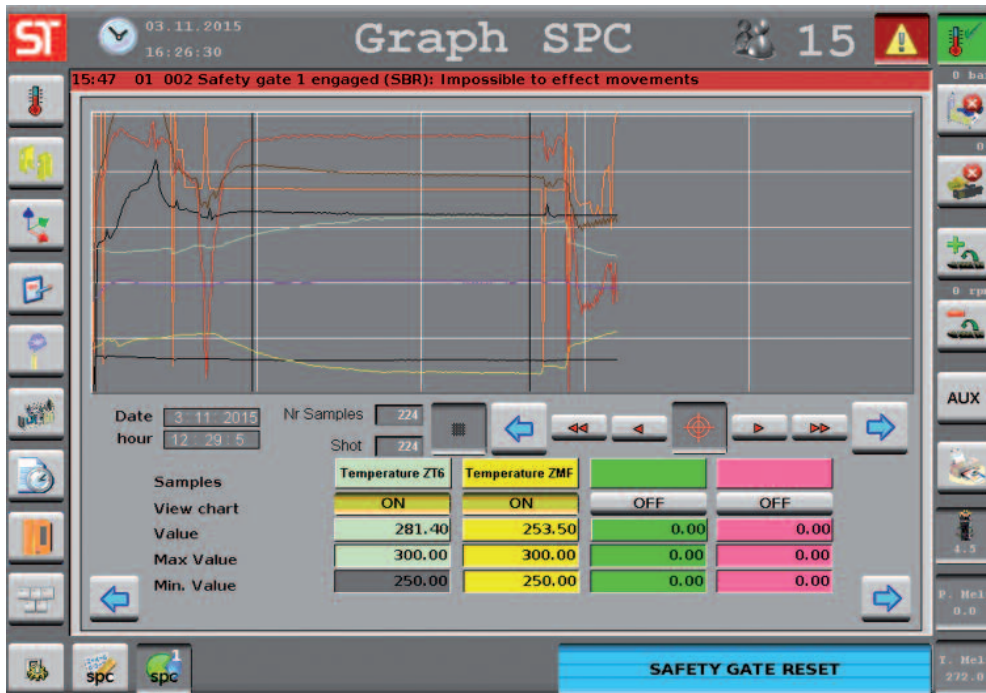
www.amut.it

New success in Mexico

Located in a strategic position between North and Central America, Mexico is among the worlds' major emerging economies. The Mexican market has shown a strong dynamism in the recent years and is very open to foreign business and investments. In particular, the automotive field, the automotive market and associated activities are among the most important and competitive in the world.

Always aware of market developments and trends, ST has noti-

ced the great growth potential of the country for a long time and has undertaken a targeted commercial action that has led to the sale of several plants, not least that of the recently tested blow moulding machine model ASPI 150.2 with 3d suction technology. Although the suction technology is already present in Mexico, a group of great global importance for the automotive sector has decided to invest in the quality of ST's blow moulding machine.



The machine in question, with a 70 mm extruder and a 2 lt head, presents the main features of ASPI blow moulding machines: accessibility, flexibility, simplicity and precision as well as a technological level that ensures high performance.

These characteristics generate immediate advantages such as: reduced scrap, the possibility of processing materials up to 350°C, the possibility to produce parts with three-dimensional shapes, even very complex and pronounced, with a considerable energy saving.

www.st-blowmoulding.com

The DuPont-Dow Chemical Merger



■ DuPont (NYSE:DD) and The Dow Chemical Company (NYSE:DOW) announced that their boards of directors unanimously approved a definitive agreement under which the companies will combine in an all-stock merger of equals. The combined company will be named DowDuPont. The parties intend to subsequently pursue a separation of DowDuPont into three independent, publicly traded companies through tax-free spin-offs. This would occur as soon as feasible, which is expected

to be 18-24 months following the closing of the merger, subject to regulatory and board approval.

The companies will include a leading global pure-play Agriculture company; a leading global pure-play Material Science company; and a leading technology and innovation-driven Specialty Products company. Each of the businesses will have clear focus, an appropriate capital structure, a distinct and compelling investment thesis, scale advantages, and focused investments in innovation to better deliver superior solutions and choices for customers.

Upon closing of the transaction, the combined company would be named DowDuPont and have a combined market capitalization of approximately \$130 billion at announcement. Under the terms of the transaction, Dow shareholders will receive a fixed exchange ratio of 1.00 share of DowDuPont for each Dow share, and DuPont shareholders will receive a fixed exchange ratio of 1.282 shares in DowDuPont for each DuPont share. Dow and DuPont shareholders will each own approximately 50 percent of the combined company, on a fully diluted basis, excluding preferred shares.

The transaction is expected to deliver approximately \$3 billion in cost synergies, with 100 percent of the run-rate cost synergies achieved within the first 24 months following the closing of the transaction. Additional upside of approximately \$1 billion is expected from growth synergies.

► www.dupont.com

Hecht Solutions finds the right measurement system

■ With the beginning of the New Year Michael Hecht began his self-employment, drawing from over 35 years of experience in the field of thickness and basis-weight measurement and 23 years as Managing Director in a leading company. Hecht Solutions is a supplier neutral consulting company, specialized in measurement technology for all flatly produced materials. The main focus of his consulting expertise is on the field of thickness and basis-weight measurement as well as on inspection systems for different surfaces. Hecht Solutions handles the important and time-consuming task to find customer-fit measurement systems which are precisely tailored to the production requirements, for the decision-makers of this field. "Often, systems are purchased which appear to meet the requirements at first, yet miss essential features in later applications", explains company owner and Managing Director Michael Hecht. He is able to meet customer's individual wishes and requirements and find precisely tailored offers with a supplier neutral sight, due to his many years of experience and his profound know-how about the entire portfolio of sensors as well as systems available on the market. This means not only a considerable time-saving for customers, but also a significant economic advantage.



Michael Hecht

► www.hecht-solutions.de

CRYSTALLCUT® pelletizing systems in China



■ Nordson Corporation will supply sixteen of its process-patented BKG® brand CrystallCut® pelletizing systems for a mega-scale PET resin plant scheduled for startup this year by Jiangyin Chengold Packaging Materials Co., Ltd. in Jiangsu Province, China. The big project reflects the intensified focus on pelletizing systems for the Asian marketplace that will be evident in Nordson's exhibit at Chinaplas 2016 (Stand W2-J01).

Nordson's CrystallCut process provides substantial energy savings in comparison with standard PET polymerization systems by using the thermal energy of the molten polymer in PET pelletizing for subsequent crystallization. In the Jiangyin Chengold facility, the CrystallCut systems will deliver PET pellets to EcoSphere™ solid state polycondensation (SSP) systems built by Polymetrix AG, Oberbüren, Switzerland, which contracted for

the use of the CrystallCut units. Chemtex Group, Wilmington, NC, U.S.A. is the prime contractor for the entire bottle-grade PET resin plant.

The CrystallCut system integrates underwater pelletizing, drying, water filtration and direct crystallizing at temperatures of up to 180 °C and crystallinity up to 40%. In the new PET plant, the system will provide a pellet temperature adjusted to the process for crystallization and delivery to the SSP equipment, which will be supplied by Polymetrix.

Nordson BKG will also supply sixteen condensation systems for the water recovered from the hot air in the process. These are expected to provide substantial additional savings through reduction in water filling.

► www.nordson.com

New brochure – series 7900 rotary joints from HAAG + ZEISSLER



■ The tried and tested rotary joints from the series 7900 by HAAG + ZEISSLER are now presented in a newly published 12-page brochure, which contains general information on the functional principle as well as operating conditions and illustrations, including the dimensions of the individual types.

The rotary joints from the se-

ries 7900 enable water to be fed into rotating machine parts and are characterised amongst other things by their small diameter. This slender design allows the optimum integration of the rotary joint even in cramped installation conditions or directly into the customer's shaft. A further special feature of the series is the robust, vibration-proof CD-Cartridge-Design sealing cartridge system. The rotor, the bearing and the stationary and rotary parts of the seal are combined into a preassembled unit. This quick-change cartridge system can be fitted with different types of bearings and seal pairings and can be individually and easily exchanged; machine downtimes are minimised. This series is available with a brass housing or entirely in stainless steel. Areas of application are, for example, wire manufacturing, extruders, mills, presses or shredders.

► www.haag-zeissler.com

Apex Launches High-End Sheet Operation with Davis-Standard System

■ A recently installed Davis-Standard sheet system has Advanced Plastic Extrusion, LLC (Apex), up and running with excellent results. Apex, based in North Carolina, is a new company focused on processing high-quality sheet with a "class A" surface for specialty and laminated sheet applications. Since starting production in September, Apex has been processing sheet using acrylic, ABS, HIPS, PC/ABS and TPO resins in thicknesses ranging from .010 to .187 mil and in widths up to 54 inches. The Davis-Standard system, extruder through roll stand, has been an integral part of Apex's successful launch from the perspective of both technology and service.

The APEX team also appreciates Davis-Standard's R&D capabilities. Prior to purchasing the system, Buck sent two of his most critical resins to Davis-Standard's technical facility in Pawcatuck, Conn. Davis-Standard was able to test the resins on a full-scale sheet line, successfully running both resins in various thicknesses and to the exacting quality requirements. For Buck, this was confirmation that his new company would have exactly what it needed prior to making such a large investment.

"My business has very specific goals and the lab trial was crucial. The line has performed as advertised and the training my operators received from Davis-Standard's engineers was invaluable," Buck explained. "Specific to the technology, I appreciate the automatic nip control for quick gauge adjustment and changeovers as well as the customized screw design, which enables us to process all resins using the same screw."



Buck may be new to the sheet extrusion business, but he is no stranger to extrusion. Prior to starting Apex, he spent 35 years in the decorative laminating industry, as the owner of a company that manufactured high-gloss sheet products for the automotive, marine, heavy truck and signage industries. His biggest frustration was finding a vendor who consistently supplied high quality extruded sheet, critical to sheet applications demanding perfection. To fill that void, Buck founded Apex and took on his former company as his largest client. He is steadily building his client base and looks to add another Davis-Standard system in the near future as production grows. Apex offers sheet in both rolls and sheet and with custom color matching.

► www.davis-standard.com

Gabriel-Chemie expands its plastics business on the Iberian Peninsula

■ By recently founding the Gabriel-Chemie Ibérica S.L. subsidiary, the Austrian family-owned company is expanding into the Spanish, Portuguese and North African markets, and is therefore pursuing its consistent growth strategy. Spain is Europe's seventh largest plastics market with an annual consumption of approximately 2.7 million tonnes of polymers (2015). Gabriel-Chemie Ibérica is solely owned by Gabriel-Chemie Spain Holding GmbH, whose Managing Director is Ms Elisabeth Sommer. The well-connected industry expert Jose Luis Santamaria Palacios has been appointed for the operational management of Gabriel-Chemie Ibérica S.L., whose registered office is in Madrid. Together with the Sales Director, Rafael Becedas Diez, he will be responsible for developing the business in Spain, Portugal and North Africa; both managers have shares in Gabriel-Chemie Ibérica S.L. As a first step, the company will invest in a laboratory and production facilities for colour masterbatches.

Over recent years, Gabriel-Chemie GmbH has successfully exported colour and additive masterbatches to countries on the

Iberian Peninsula. It is hoped that opening a new sales and production subsidiary will help generate further growth in this important market.

Ms Elisabeth Sommer, Managing Director of the Gabriel-Chemie Group, is delighted to see this step towards expansion: "Our growth potential in this economic area has been limited by our current structure. By having our own sales and production subsidiary, we are able to react better and faster than ever before to the market needs of Iberian industries. By building on our reputation for high quality, we believe there is great potential for us to successfully establish ourselves in this large plastics market". The Austrian plastics company already has six subsidiaries abroad and, by founding a new subsidiary in Spain, it is signalling healthy growth.

► www.gabriel-chemie.com

New Assembly Plant ILLIG India Ceremoniously Opened

First ILLIG-India-assembled RV 53 machine already sold at opening ceremony

■ ILLIG celebrated the official opening of its new production plant ILLIG India Pvt. Ltd. in Malur, around 30 km to the east of Bengaluru, the economic epicenter and capital city of the south Indian state of Karnataka. Initially founded in 2014, ILLIG India is set to serve its Indian customers directly from India with the assembly, delivery and service support of the vacuum forming machine RV 53. The opening ceremony included a traditional Indian Agni Pooja (worship to fire), a Hindu ceremony, also known as Jaggya or Homa. A good turnout of around 120 people attended the event, including many existing, as well as potential Indian customers. The first RV 53 assembled by ILLIG India was handed over to its new owner at the opening ceremony: Maharashtra Polymers from the metropolis Mumbai will soon be producing trays and packaging on the ILLIG-India-assembled RV 53 for renowned multinational chocolate manufacturers. The

decision may have been influenced by the positive experience that Bioplas Industries, Mumbai, has had since acquiring their first RV 53 at Plastindia 2015. Bioplas has enjoyed tremendous success producing trays for TV dinners on their RV 53.

"ILLIG India is set to supply the Indian continent with the RV 53 vacuum machines. Everything from the assembly of the machines to after-sales service and on-site application consulting at the customers' production plants. With the RV 53 assembled in India, we are well equipped to serve the growing Indian packaging market with a very versatile thermoforming machine at a very attractive price-performance ratio. We're able to ensure high-quality machine technology by supplying the components and assemblies from our main plant in Heilbronn, Germany, for assembly in Malur, which means they'll carry the "made in Germany" seal of approval," explained the Heilbronn plant manager and board member of ILLIG India, Dr.

Hans-Peter Roth, at the opening ceremony. The newly renovated assembly plant in Malur currently has around 800 m² of usable floor space. In addition to the assembly area, the facilities also include modern office space and a large warehouse for spare parts. There is also a showroom where customer training can be conducted, among other uses.

ILLIG has been well represented on the Indian continent for over 25 successful years by HiTech International, Mumbai, sales agency. HiTech will remain on board for sales, service and spare parts for all other ILLIG thermoforming machines and tools from ILLIG Germany.

ILLIG RV 53 – highly attractive for thermoforming packaging

The ILLIG RV 53 utilizes vacuum forming technology on unsophisticated forming tools. The automatic pre-blowing that pre-stretches the material on a positive forming mold ensures an evenly distributed wall thickness even for high-profile formed parts. The versatility of the RV 53 gives you all the possibilities of forming, punching and stacking thermoformed parts. It's ideal for manufacturing technical parts like transport pallets or tray inserts, but also for packaging products for both non-food and food applications. In automatic operation mode high packaging hygiene standards can be met.

The standard parts system for manufactu-

Grand opening of the new assembly plant ILLIG India with Open House on November 27 and 28, 2015



ring molds, punches and stacking devices that was specifically designed for the RV 53 is an essential component in the success of this machine type. This enables the customer to be able to construct his own simple-design forming and punching tools according to his own requirements and at a very low cost. ILLIG's manual for mold making that was designed specifically for this machine type lets customers realize the machine's full potential; ideal conditions for manufacturing formed parts economically and efficiently, even for small series production. It also offers the possibility to have complete tool sets made by Indian tool makers. ILLIG India offers its customers and Indian tool makers support for the technical realization of forming tools. At the ILLIG India opening ceremony two thermoforming tools made by Indian suppliers were on display and demonstrated.

The ILLIG RV 53 is available in different models and different levels of automation, and has a maximum forming area of 500 mm x 350 mm. Formed parts with a drawing depth of up to 100 mm above and 40 mm below the material level can be realized. The RV 53 is capable of processing a wide range of materials including PS, PVD and APET in material thicknesses from 180 μ m to 1.3 mm.

stranger to extrusion. Prior to starting Apex, he spent 35 years in the decorative laminating industry, as the owner of a com-



ILLIG RV 53 vacuum forming machine and typical applications

pany that manufactured high-gloss sheet products for the automotive, marine, heavy truck and signage industries. His biggest frustration was finding a vendor who consistently supplied high quality extruded sheet, critical to sheet applications demanding perfection. To fill that void, Buck founded Apex and took on his former company as his largest client. He is steadily building his client base and looks to add another Davis-Standard system in the near future as production grows. Apex offers sheet in both rolls and sheet and with custom color matching.

► www.illig.de

New General Manager for Extrusion and Coating dies



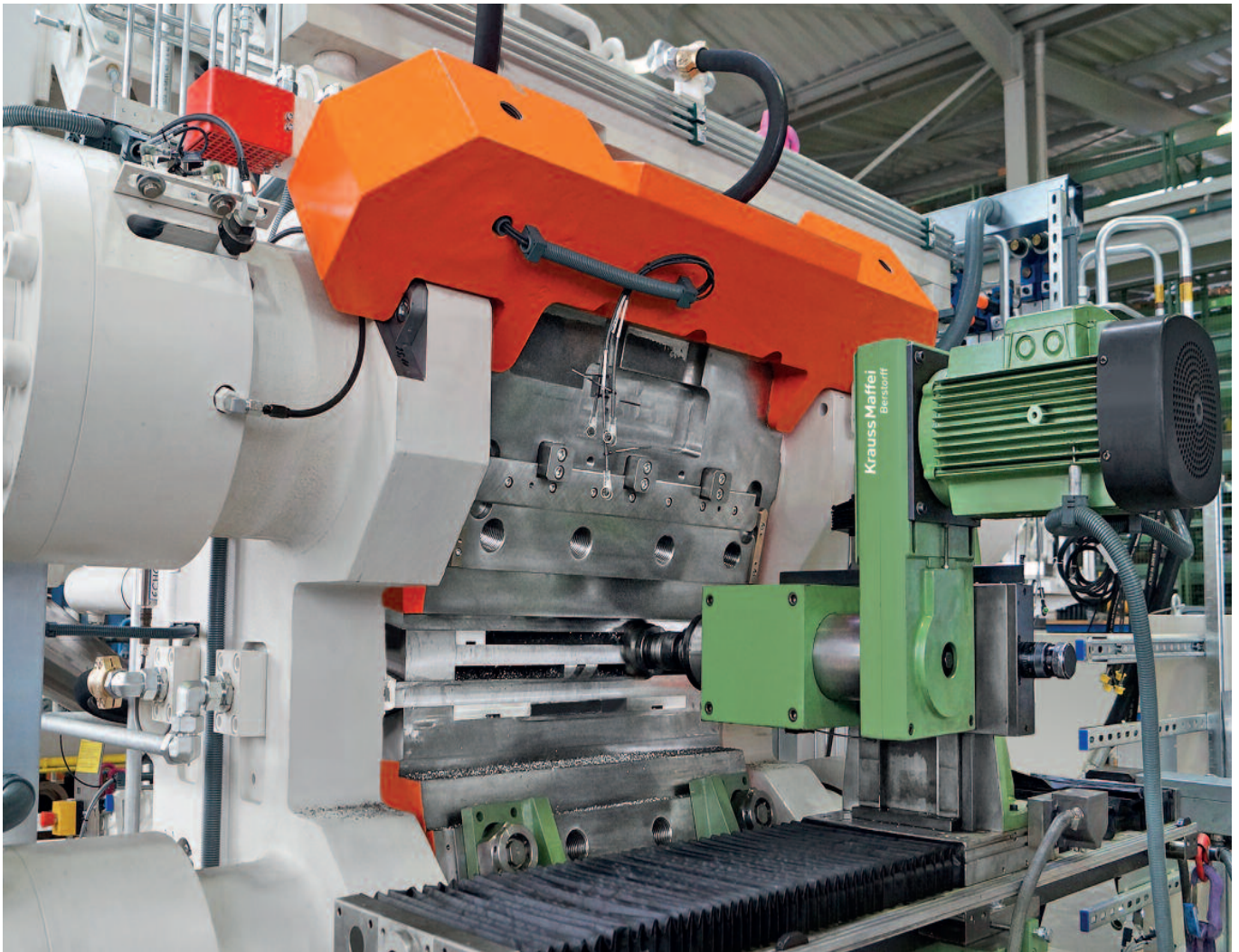
Ken Forden

■ Nordson Corporation has promoted Ken Forden to be general manager of the extrusion and coating die business within the company's polymer processing product line. Mr. Forden will have worldwide responsibility for the EDI™, Verbruggen™, and Premier™ product brands. Andrei Stapinoiu, previously the global director of this business, has been promoted to the position of managing director, Europe/Middle East/Africa, for the Nordson EFD division.

Prior to taking on this new role, Ken Forden served as vice president and general manager of Nordson EFD, a leading supplier of precision fluid dispensing systems. He entered the polymer industry in 1987 as a business development manager with Borg Warner Chemicals. Following the acquisition of Borg Warner Chemicals by General Electric in 1988, he spent 19 years in management positions with GE Plastics. Subsequently he worked for six years with Johns-Manville before joining Nordson EFD in 2012.

Mr. Forden holds an MBA from Vanderbilt University and a BSc degree in civil engineering from Michigan Technological University.

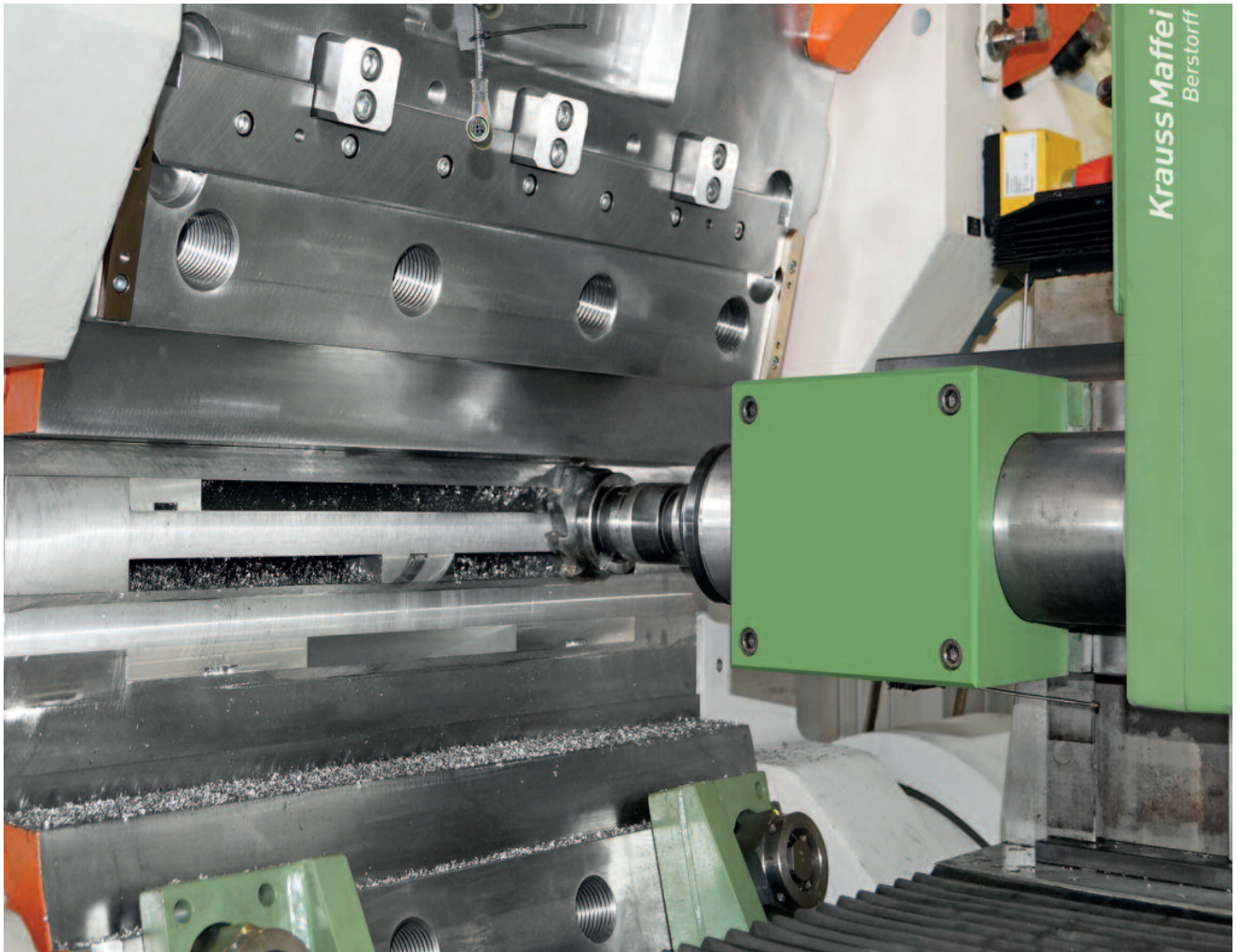
► www.nordson.com



*KraussMaffei Berstorff mobile milling system
for precise machining of Multiplex heads*

Mobile milling service for Multiplex extrusion heads

An increasing number of tire producers all over the world use KraussMaffei Berstorff's on-site milling service. The service package comprises face-milling of Multiplex extrusion dies that are subject to wear during production. The milling operation is conducted during scheduled maintenance and ensures perfect fitting of the profile extrusion tools to restore maximum line performance.



The extrusion tools perfectly fit after the face-milling operation

Wear- or damage-induced pressure losses

"Our mobile milling service is designed for tire producers faced with leaks in the die area are after having operated their extrusion heads for years on a 24/7 basis. The damaged areas result from increased wear produced by compounds with high silica shares or by cleaning operations due to frequent formulation and profile changes", explains Maik-Marcel Poppe, Head of KraussMaffei Berstorff's Technical Spare Parts Service. "This leads to pressure losses in the extrusion head and to undesired material leakage." The milling system was specifically designed for on-site high-precision machining of Multiplex extrusion heads with working widths ranging between 360 mm and 1050 mm. The system features brackets developed in-house that can be firmly connected with the extrusion heads and perfectly aligned. Various face-milling tools with a maximum number of cutting edges and adapted geometries ensure optimum chipping results and outstanding surface qualities.

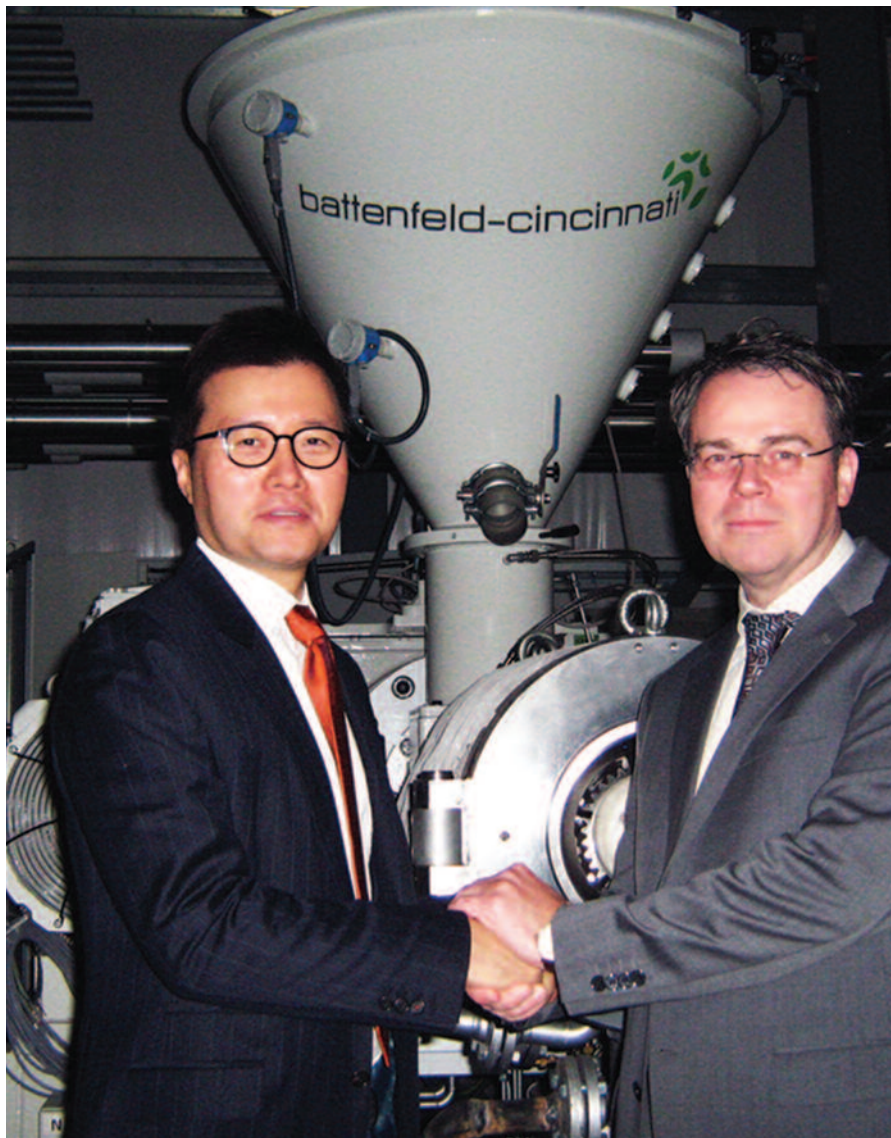
Tire producers benefit from mobile milling service

Thanks to the milling operation, the specified tolerances can be met again. In addition, the sealing face of the die components is substantially improved, which reduces material and pressure losses. Upon completion of the milling process, KraussMaffei Berstorff issues a detailed measuring report so that the new coordinates can be considered in future extrusion tool or flow channel orders. The tire producer merely needs to provide lifting gear and power supply and heat up the head to extrusion temperature – that's it. Everything else will be taken care of by the KraussMaffei Berstorff service staff.

The mobile milling system is composed of milling heads in different sizes, brackets and milling tools. Stored in a maritime container, the milling system can be sent to production sites all around the globe within shortest time.

Planetary roller extruder

NOX Corporation, Korea, one of the largest producers of luxury vinyl tiles (LVT) worldwide, has recently started operation in a new facility in Fostoria, Ohio, USA. The factory is equipped with several calenders and complete as-sembly lines. A PWE 250 planetary roller extruder from battenfeld-cincinnati Germany is used for the production of top-layer sheet and decorative sheet.



Dan Koh, CEO and President, NOX Corporation and Michael Roth, Sales Director, battenfeld-cincinnati in front of the planetary roller extruder in the new facility in the USA

The planetary roller extruder, with outputs between 1,600 and 2,200 kg/h, manufactures transparent or opaque PVC sheet with thicknesses of 120-300 μm . The transparent sheet is used as top-layer against scratch marks, while the opaque, mainly white sheet is printed with the decoration.

Afterwards, all layers are laminated and embossed together onto a basis material highly-filled with chalk. NOX Corporation's Integrated Vertical Production (IVP) system has enabled the company to commit to offering its customers consistent quality standards and innovative products. NOX Corporation was the first to market "LVT click" in 2005 and "loose-lay LVT" in 2006.

"LVTs are very sophisticated and technically complex products. We have been working successfully with battenfeld-cincinnati for many years and appreciate the high quality of the machines. For our new factory in the USA, it was especially important to have local service support from the US facility of battenfeld-cincinnati. By opening its LVT manufacturing facility in the USA, NOX Corporation expects to improve customer service. As the only OEM/ODM LVT plant in the USA, it will give customers access to a wide range of high-quality products," says Dan Koh, CEO and President of NOX Corporation.

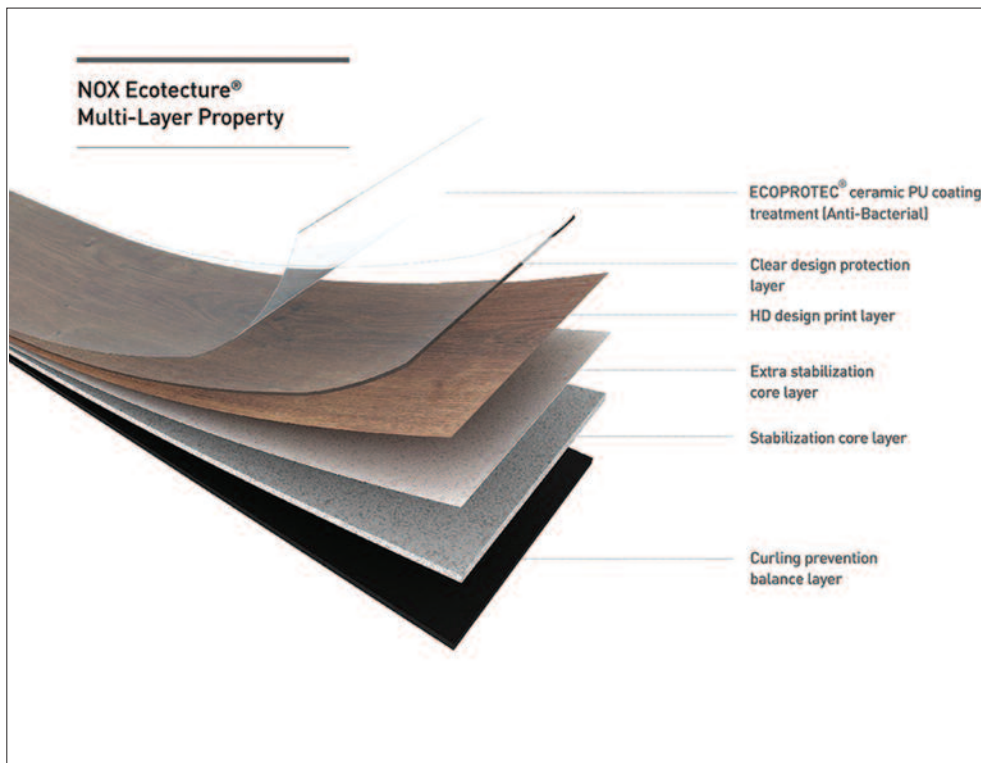
LVTs are PVC decking laminated from multiple sheet and in-stalled in a similar fashion to laminate flooring. The sheet used is produced with calenders. LVTs



LVTs can be used as flooring in different buildings, e.g. offices, hotels, educational facilities or restaurants (Photo: NOX Corporation)



Configuration of an LVT: sheets with different properties are laminated together to form a floor tile (Photo: NOX Corporation)



have captured a substantial market share in the past years in the area of decking and their share in the segment currently has two-digit growth rates.

The planetary roller extruder system features good mixing prop-erties, short residence times and high surface renewal. battenfeld-cincinnati is the only manufacturer that produces

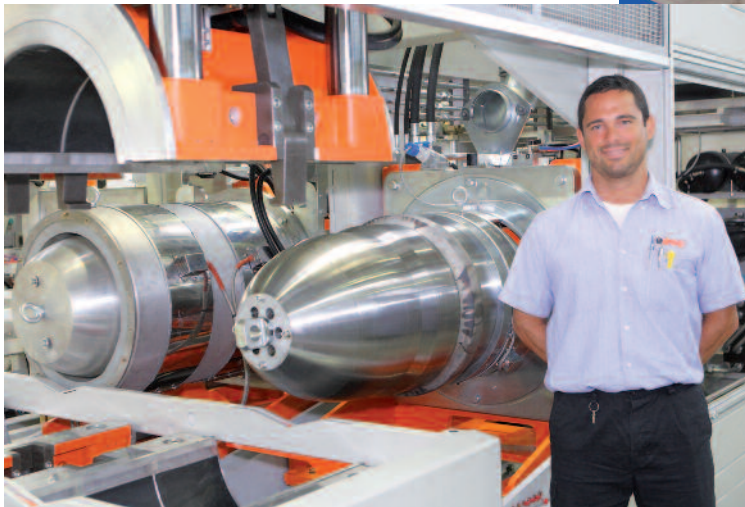
all machine components in a grinding process and thus achieves precise geometries as well as high-strength, wear-resistant compo-nents.

battenfeld-cincinnati has been offering planetary roller extruders for many decades, with about 450 machines currently working in the field in more than 50 countries worldwide. Beside the classic machines for PVC sheet production, battenfeld-cincinnati successfully introduced the STARextruder for direct extrusion of PET sheet to the market a couple of years ago. A planetary roller part for degassing the PET melt is an integral component of this extruder.

www.battenfeld-cincinnati.com
www.noxprime.com

Bi-oriented PVC pipes are increasing

Bi-oriented PVC pipes are recognized for their considerable savings of raw materials while maintaining the same mechanical resistance and application in comparison to standard PVC-U pipes. The number of PVC-O pipe extrusion lines is increasing in several areas of the world, but especially in the Americas and Australia.



the equipment is also protected by patent, in particular the constructive configuration of the contact oven, which achieves a stable and repeatable final heating. The sockets obtained have precise internal dimensions and a perfectly flat edge, shaped by a sliding flange on the mandrel. Thus, no further processing of the edge is required after the socket forming.

SICA belling machines, called STARBELL, are particularly suitable for direct installation in extrusion lines. To date, SICA has sold 19 Starbell machines and over 100 forming mandrels, thus achieving vast experience in the field.

There are three models of STARBELL belling machines:

- STARBELL 250 for pipes up to a maximum diameter of 250 mm,

- STARBELL 500 for pipes up to a maximum diameter of 500 mm,

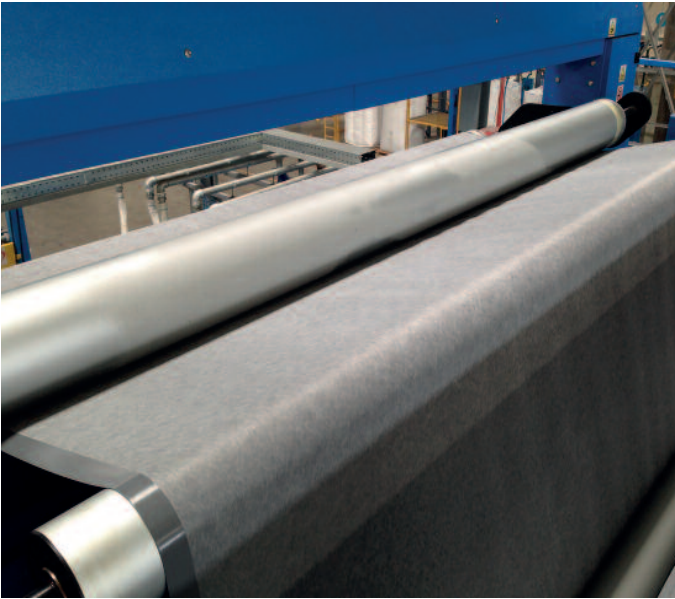
- STARBELL 630 for pipes up to a maximum diameter of 630 mm.

The machines are also suitable for stand-alone installation in PVC-O lines.

The technical and commercial success of the STARBELL machines surely lies in their reliable and repetitive working process, in their user-friendliness and in their strong and robust design configuration.

Like PVC-U pipes, the most suitable joint system for PVC-O pipes is a socket SICA, manufacturer of plastic pipe machinery, in 1998 patented (EP0930148) and developed a unique socket thermoforming process for PVC-O pipes. SICA's patented system is characterized by forming and internal calibration of the socket on a metal mandrel. The heated pipe end is inserted onto the metal forming mandrel when the final thermal state of wall-thickness is uniform but varies longitudinally along the pipe. The precise final thermal state is attained through conductive heat transmission, without variation of the pipe end diameter. In addition to the process,

► www.sica-italy.com



Improves waterproofing membranes performances

The recent market trend is gradually growing more in favour of synthetic components than bituminous ones, AMUT manufactures extrusion lines producing waterproofing membranes capable to process different thermoplastic materials, such as F/PVC, TPO, TPE. The use of these materials definitely improves the technical performances and the physical features of the membrane, complying with international standards and requirements in the civil works sector.

AMUT technology allows to:

- 1- multi-layers membrane production in one-step (no off-line lamination required) using a single calender properly designed. This process reduces the costs and simplifies the running operations for the operator;
- 2- flexible production guaranteed in terms of different materials processing on the same line;
- 3- multi-layer reinforced membranes production in one-step by means of reinforcing elements laminated among the layers to enhance the mechanical resistance of the finished product;
- 4- support base (fleece-back) lamination, usually on the lower side of the membrane.

AMUT has recently supplied to a large Turkish customer, an

HYBRID TYPE Line, capable to produce F/PVC or TPO membrane 2.200 mm width, three layers of thermoplastic material and thickness range from 1 to 3 mm. The extruders' screws special design is suitable for both materials, so NO SCREW CHANGE is required. Within the membrane's configuration, it is included an inner reinforcing scrim and a bottom protective/supportive fleece (fleece-back).

The total output is 1800 kg/h for F/PVC and 1250 kg/h for TPO, giving an annual membrane production of more than 4 Million m².

A double-inlet calender consents to obtain a "sandwich" geometry in a single step: the external layers, with inserting/laminating of reinforcement in polyester or in glass fibre, and coating of fleece-back.

The line is also equipped with thickness gauge measuring device, high accuracy winder unit to produce jumbo and custom rolls and PC/PLC system to control all running operations of the line.

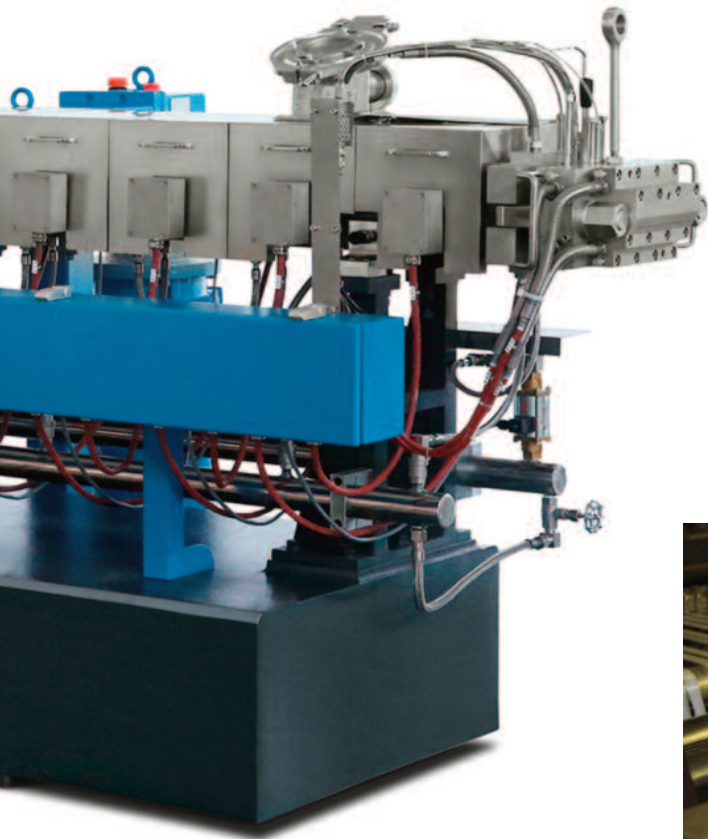
► www.amut.it



Melting of the polymer and mixing with special additives takes place within the extruder – for example the STS 65 Mc11 twin screw extruder shown here (Photo: Coperion)

Coperion offers technology for long fiber compounds

Coperion GmbH is expanding its offering in the area of long fiber technology for the European and Asian regions. In cooperation with ProTec Polymer Processing GmbH, Coperion now offers complete installations for the production of long fiber reinforced thermoplastics (LFTs), meeting the growing need for LFT pellets. Components made of long fiber-reinforced plastics possess outstanding rigidity with low weight and increased impact resistance. Compared to short-fiber reinforced thermoplastics they also demonstrate improved mechanical and thermic material properties. With this improved quality, long fiber reinforced thermoplastics are well suited for higher stress und demanding areas of use.



Pultrusion for LFT pellet production

The production of long fiber reinforced thermoplastics takes place within the pultrusion process. Here glass, carbon, metal or natural fibers are mixed into a polymer matrix. Through the pultrusion process, the individual fibers of the strands are impregnated. A homogenous bond of carrier polymer and individual fiber results. Melting of the polymers and mixing of additives takes place within the extruder. Coperion uses the ZSK Mc18 twin screw extruder or the STS Mc11. The ZSK Mc18 series is used in particular for products with a high torque demand, such as Engineering Plastics or high-temperature applications; the STS Mc11 series is used for standard plastics such as polypropylene and polyethylene. Coperion K-Tron equipment is used for feeding, as it is particularly suited for raw materials in powder form, such as polymer powder, additive powder, or filler materials such as talc and chalk. Following impregnation, the fiber-polymer strands are cooled in a water bath and subsequently pelletized to rod shaped pellets. Coperion Pelletizing Technology GmbH's pelletizer is equipped with a special chopping rotor for this task. The final pellet length is usually between

5 and 12 mm. Whereas in the past, primarily polypropylene was used as the base polymer, there is now a clear trend toward other polymers such as PA, PEEK or PLA, and others can be used as well according to need. Line speeds are up to 50 meters per minute, depending upon the used polymer.

Collaboration offers many advantages

The collaboration between Coperion and ProTec Polymer Processing offers numerous advantages. The complete line is offered with optimized components to enable the highest quality LFT pellet manufacturing. Among these, along with the ZSK Mc18 or STS Mc11 twin screw extruder series, is a specially designed impregnation die head, developed by ProTec, which cannot clog with filler material. Moreover, roving unwinding with rotating coils, as well as roving pre-warming with individual fiber spreading, enable the best possible fiber impregnation. The complete installation offers one further advantage: different polymers in combination with special additives can be used in the same production line. Support



Roving pre-warming with spreading of the individual fibers enables the best individual fiber wetting (Photo: ProTec Polymer Processing)

and development of customer-specific formulations can take place in ProTec's Testing Center in Bensheim. This production of product samples allows to validate components manufactured with LFT pellets. Using twin screw technology and the special impregnation die head, it is also possible to use additional fillers and even regrind material. As a result, the customer receives a fully automated production line, set and optimized to the customer's formulation.

The automotive industry is one typical area of use for LFT; however, this technology offers advantages for further application fields in which products are exposed to higher demands and stresses, and would thus benefit from higher quality. At this time, Coperion and ProTec are working on their first joint client project in Europe.

► www.coperion.com,
www.sp-protect.com

Biocomposites from A to Z



About 400,000 tonnes of Wood-Plastic Composites (WPC) and Natural Fibre Composites (NFC) are produced in Europe every year. The most important markets are decking, light-weight components for automobile interiors and consumer goods, for example toys, as the organizer of the conference, nova-Institute (DE), presented in its latest market study. More than 220 participants attended the world's largest conference on Wood-Plastic Composites (WPC) and Natural Fibre Composites (NFC), which took place for the sixth time in Cologne, Germany.



ket – including glass, carbon, wood and Natural Fibre Composites – is already an impressive 15%. The production volume of WPC was 260,000 t in the EU in 2012, for NFC 92,000 t. The full study can be downloaded at <http://bio-based.eu/markets>.

Another highlight was the trend in WPC and NFC granulates. So far, mainly small producers and traders offered WPC and NFC granulates with limited technical support and often missing data for simulations. But this has been changing since big global players introduced their new developed materials, such as “Sus-

A lot has happened in the field of bio-composites since the first WPC & NFC Conference took place ten years ago (then “First German WPC-Conference”). Good reason for Dr. Hans Korte from Dr. Hans Korte Innovationsberatung Holz & Fasern, Wismar, to summarize the technical developments in the field of WPC and bio-composites since the end of the 1990ies. For the last two decades, the German WPC market has been growing continuously, as was reported by Dr. Peter Sauerwein from the “Association of the German Wood-Based Panel Industry (VHI)”. An analysis of commercially available European decking samples was presented by Dr. Andreas Haider from Wood K plus, Austria. Some products in the market show an overall better performance compared to 2008 – in particular regarding water absorbance and colour fading but also regarding the mechanical properties. Dr. Wayne Song, WPC (Wood-Plastic Composite Council of China) presented the latest market news and trends in the Chinese market. He focused especially on interior walls, whose market shares have not been growing as strongly as had been predicted by Chinese representatives at previous conferences. Dr. Asta Partanen, project leader of the conference, presented the outline of “Status and Future Markets for Bio-based Composites in Europe until 2020”. The talk provided insights into the new market and trend report, published in June 2015: “Wood-Plastic Composites (WPC) and Natural Fibre Composites (NFC): European and Global Markets 2012 and Future Trends in Automotive and Construction”. According to the study, the share of WPC and NFC in the total composite mar-



tainable Lightweighting Thermoplastic Solutions for Automotives” presented by Marc Mézailles from PolyOne Global Engineered Materials (FR/USA).

Developments in the use of bio-based polymers in the automotive industry were shown by Global Marketing Director Bioplastics at Corbion Purac B.V. (NL), François de Bie, together with Francesca Brunori from Röchling Automotive SE & Co.KG (IT). They presented their latest cooperation results on high heat PLA 100% bio-based natural fibre filled compounds. “Sustainable Lightweight Material in Automotive Industry: Simultaneous Back Injection Moulding of Natural Fibre Composites”, was presented by Tayfun Buzkan and Motoki Maekawa from Toyota Boshoku Europe N.V. (DE / JP). The material performance fully meets automotive requirements and reduces production time.



Coffins, Flower Pots and Clarinets

The well established “Wood and Natural Fibre Composite Award” was awarded for the fifth time. Out of 25 companies that applied, a jury nominated six. Each of the nominated companies introduced its new material or product to the conference participants in a 10-minute presentation on the first day of the conference. The 220 participant of the conference choose three winners. The award nomination took place during the gala dinner. The award was sponsored by Coperion GmbH (DE), international market leader in compounding and extrusion technologies.

First place: ONORA BV (NL), 100% bio-based coffin with hemp fibre reinforcement in injection moulding technology

The participants choose by far the natural fibre-reinforced, 100% bio-based coffin as their winner. The product is injection moulded which allows for great freedom of design and a variety of shapes and colours. The bio-based compound makes the coffin biodegradable and is an example for new large-volume applications of biocomposites. Life cycle assessments show a CO₂ footprint that is not only lower than the CO₂ footprint of conventional but also other eco-coffins.

Second place: Millvision BV (NL), Flower pots made of biodegradable biocomposite with agro rest fibres

These flower pots produced of agro rest fibres from pepper and tomato cultivation and bio-based plastics are price competitive. They are used for tree nurseries and market-gardens and are cold soil biodegradable within just a few months. This new pot acts as fertilizer, improves plant growth and therefore

prevents plastic waste from oil based containers and the associated expense.

Third place: Aqvacomp Oy and Flaxwood Oy (FI), Cellulose fibre-reinforced polystyrene for music instruments

Those composites have the potential to replace the use of a number of rare and threatened wood species. Several recipes have been developed for various musical instruments with equivalent property profiles, for example a cellulose fibre composite replacing granadilla wood in clarinets. The components have excellent thermal and humidity resistance, reducing the typical tuning problems of wooden instruments. The next WPC & NFC Conference, Cologne will take place in autumn 2017.

► www.wpc-conference.com/award
www.bio-based.eu/proceedings
www.nova-institute.eu

Rapid launches Low Built Base granulators for sheet and film

Size reduction equipment specialist Rapid has launched the LBB 300 series, a granulator with a very low height for handling sheet and film scrap. The new unit (LBB stands for Low Built Base) is intended principally for use in-line with a thermoforming unit, where its very low height allows it to be located directly under the output conveyor, saving valuable floor space.

The LBB 300 series, which appeared in prototype form at K 2013 in Düsseldorf two years ago, made its official commercial debut at the Fakuma show in Friedrichshafen, Germany, on October 13-17. It is available worldwide. Height of the LBB 300 series is just 600 mm (excluding feeder) and it is available in three widths: 900, 1200 and 1500 mm. The unit can be equipped with a rollfeed unit synchronized to the thermoforming line speed, or with a simple tray that collects skeletal frames as they fall from the line. The modular granulator can also be configured to fit directly under a shredder to provide final size reduction, without the need for the conveyor belt used in common practice for connecting the two units. Rapid offers the LBB granulator in versions with various types of rotors and hoppers, depending on the application. The very compact design of the LBB 300 series means that it takes up very little extra space on the production floor. Depending on model, width is between 2000 and 2300 mm, and depth is 700 mm. It is designed to handle film and sheet up to 8 mm thickness, depending on material. "We are really delighted with our latest addition to the extensive Rapid range of granulator solutions," says Bengt Rimark, Sales and Marketing Director at Rapid. "The new LBB 300 series represents what we are all about at Rapid - innovative, flexible and highly-efficient space and cost beneficial granulator systems that meet our customers' needs." The LBB 300 series uses a true scissors cutting action to provide clean and precise cutting of sheet and film, and high quality regrind. The rotor on all models is 300 mm in diameter, fitted with six, eight or ten blades depending on model size. The two smaller units have six



fixed knives, while the largest has nine. Units can be fitted with motors rated at between 7.5 and 30 kW. Maximum throughput capacities range from 800 to 1200 kg/h. Output can be transported via a vacuum conveyor straight back to the production line for reprocessing. All units are fitted with a rotor stand-still guard for operator safety. The two larger units both feature split screens and split screen boxes for extra ease of service and maintenance. The equipment is mounted on a solid stand with castors for ease of movement when required. Basic units weigh between 1200 and 1500 kg, depending on size.

► www.rapidgranulator.com

Drying and central material supply of the special kind

With the integration of external energy sources for the drying and the setting up of the central material supply motan-colortronic has realized unique solutions at the automotive supplier FKT.



13 drying bins keep the common materials at FKT available in high processing quality, from here they get to the injection moulding machines via the central conveyor system

The heat exchanger technology is fully integrated in the motan control that uses the district heating to heat the dryer air



FKT mainly assembles fabrics, nets, aluminum profiles - and plastic injection moulding parts - into complex assemblies at the location Pörring near Ingolstadt. In the last few years the injection moulding sector was completely rebuilt, in September 2015 there were eleven machines up to 3000 kN clamp force in use, further expansion is already being planned. From the start of the injection moulding, a system by motan for the material drying was installed.

As a distinctive feature FKT operates a cogeneration plant with wood chips combustion for generation of district heating, which also supplies several companies and buildings in the area. FKT also uses the low-cost district heating through a buffer tank for tool heating. In addition, the external heat supply was integrated into the granule drying. "We have accomplished this with motan-colortronic in the first expansion phase" explains CEO Guido Günthner. The drying system with 13 Luxorbin A drying bins of various volumes and a coupling station by motan-colortronic form the heart of the central material supply at FKT. The energy supply of the drying system demonstrates high environmental expertise: A dryer of type Luxor A 900 feeds the drying bins with dry air, which is heated by the heat exchanger from the district heating supply. Only when temperatures above 80 degrees are required, does the temperature difference get generated by conventional electrical heating. For polyamide GF50 variants, for example, the difference is typically only 20 degrees. Some engineering plastics processed in smaller quantities require drying temperatures that are slightly over 100 degrees. Despite this unusual configuration, the entire control and monitoring, including the one of the heat exchanger was mapped by mere configuration in the standard controller software of the motan dryer equipped with ETA plus technology. ETA plus automatically regulates the air temperature and volume depending on drying parameters and extraction volumes. The energy supply is thus continuously adapted to the actual demand - even with a reduced workload. The exclusive use of the standard software - in spite of the very special conditions - creates investment security for the customer, since software updates and future enlargement do not require individual adjustments. There are already plans for connection to a central control center.

Simple infeed of ground material

FKT processes predominantly reinforced materials with high abrasiveness. Accordingly, the elbows of the conveyor system and the coupling station were made out of glass. Similarly, glass inserts are available in the drying bins to keep maintenance costs minimal and achieve high process reliability. The coupling station provides 13 inlets and six outlets. Occasionally, a total of five mini color dosing devices of motan are used, to be able to dose additives directly on the machines. These dosing units can be exchanged freely between machines, suitable adapters are available everywhere.

At FKT the use of ground material is the rule: Sprues are ground directly on the machines and added to the virgin material. Otherwise, a central grinding is used. The motan conveyor system sucks directly from the mill and routes the ground



Dosing devices are only used depending on the order, adapters are available on all machines. This reduces the investment costs

material into the ongoing processes. The Metro HCG conveyors used have two inputs as a standard feature, the controller can also use these in the standard. Additional switches are not required. With 13 drying bins, FKT has comparatively high capacities and the ability of keeping a large part of the material available parallel with an optimum degree of dehydration. The typically small batch sizes of an average of only 4,000 to 5,000 pieces at FKT require an even faster and easier set-up than in other injection mould productions in order to keep costs under control. This especially applies to the central material supply: In addition to the possible diversity of materials in the system, the planners give special importance to fast cleaning, except for maintainability, expandability and the possibility of integration in the extraordinary FKT energy concept. When the material is changed, the system is completely sucked empty, via the extraction boxes below the bins they are emptied over a short distance. Central material drying and supply are key building blocks for FKT's efficient injection moulding production. Their reliable, trouble-free and low-maintenance operation is an integral part of the expanded production with its exceptionally small series for an automotive supplier, which has been built up in the space of a few years.

FKT in Pörring

FKT predominantly delivers assemblies on average in rather small numbers to the Volkswagen Group and BMW. After changes in the ownership structure, the family business has realigned its strategic focus since 2008: The mere assembly operation changed in a few years into a system supplier of wide vertical range of manufacture and comprehensive development activity. Idea development, design, validation, production and assembling are typical for the most current products. This includes wind deflectors for convertibles, shading systems for passenger cars and mobile homes as well as a number other optically and functionally sophisticated assemblies that are produced in rather small series.



*IC-RDKP 72 automatic roll-fed thermoforming machine equipped with ILLIG IC control concept:
The production of a sophisticated hinged pack made of APET demonstrates the efficiency of this machine
Picture: ILLIG*

High Productivity, Product Quality and Operational Reliability

ILLIG's current generation of automatic forming machines of the RDKP series is equipped with a separate forming and punching station. The efficiency of this machine working from a roll stock is demonstrated by model IC-RDKP 72 (forming area max. 756 mm x 535 mm) and a sophisticated hinged food pack made of polyethylene terephthalate (APET) produced on this machine. The production line is additionally equipped with a hole punch press (punching force 600 kN) positioned between forming station and steel rule punch press. It is employed to apply frequently required venting openings to the packs. The line works at a speed of up to 50 cycles per minute with 6-up mold.

Trays and hinged packs used for protection of food during transport and for presentation of food articles on supermarket shelves are manufactured on thermoformers of the RDKP series from thermoplastic materials such as PS, PP and PET through to bioplastics such as PLA: The flexible production of medium and even small batch sizes with frequent

material, format and mold changes is part of everyday practice. The high productivity of today's machine generation achieved by consistent use of servo drives and process-controlled machine sequencing is effectively supported by the new ILLIG IC control concept (Intelligent Control Concept). This lets the machine operator get the most out of the entire thermoforming line in terms of productivity and quality in an efficient manner. By using the IC module "accelerated mold change", for example, not only time can be saved, moreover, the whole mold change can be carried out more reliably. The operator receives targeted information on the screen for all tasks required in conjunction with a mold change along the whole thermoforming line. This helps to prevent errors right from the beginning which otherwise might cause machine malfunction or even production standstill.

The opening of the new EREMA UpCentre®



Robert Obermayr, COREMA® Product Manager, explaining the upcycling service of the new UpCentre®

Robert Obermayr, COREMA® Product Manager, explains: "On the way from recyclates to made-to-measure recycling compounds you need a lot of fine tuning in practice: processors demand varying quantities of samples – as often and as long as necessary until the recycling compound meets the exact requirements of their concrete application, such as film or injection moulding parts." Customers can now take advantage of the UpCentre® to produce sample amounts in tonnes quickly and flexibly. They benefit additionally from the process engineering know-how of EREMA and Coperion – two global market leaders in their fields. The UpCentre® features a COREMA® 1108 T for a maximum monthly production of 500 tonnes.

With this investment of around 2 million euros EREMA once again shows that it is a forerunner and thought leader with regard to more recyclates being used in end products in the future. To enable these recyclates to be used 1:1 as a substitute for virgin material they have to have exactly

specified, customised property profiles. Processors are interested above all in the recycled pellets allowing trouble-free further processing and the assurance of the functional characteristics of the end products produced from them. EREMA became aware of this development years ago.

With its COREMA® product line EREMA combined all benefits of recycling and compounding in a single processing step for the first time in 2012. The company has now taken the next step forward with its UpCentre®. For exactly specified raw material based on recyclate to feature more and more in the marketplace you need on the one hand the right re-

The opening of the new EREMA UpCentre® on Friday 20 November 2015 in Gunskirchen (not far from the company's headquarters in Ansfelden, Austria) generated interest throughout the value chain of the entire international plastics industry – from collecting and sorting companies, producers of washing plants, recyclers and plastics processors to polymer producers and research institutes, all of them were represented. With its UpCentre®, EREMA, the global market leader in plastics recycling systems, has opened the doors to a whole new form of upcycling service which means that customers now have COREMA® technology for the sampling of recycling compounds at their disposal.

cycling technologies and, on the other hand, intense communication throughout the entire value added chain. EREMA is investing in this communication and the UpCentre® is a proactive contribution towards precisely this dialogue taking place.

The innovative COREMA® system unites recycling and compounding in a single process step, saving considerable time and costs. This is how recycling compounds with exactly specified characteristics are made



Online and offline analysis of Pellets and Flakes

One concept - several possibilities to assure quality



SIKORA PURITY CONCEPT X for sample analysis (Image: Sikora)

SIKORA presents its new and pioneering models of the PURITY CONCEPT Systems. With that, the company offers an outlook on the varied potential of its systems for online and offline inspection and analysis of plastic material.

According to the application, the systems are equipped with X-ray technology (X), infrared technology (IR) or optical sensors (V) and can be used for samples during the production in order to find impurities from 50 µm.

Especially interesting are the systems for the manufacture of medical hoses. An essential criterion for hoses of the medical field is the absolute purity of all materials in order to ensure highest quality for the demanding range of application.

Incoming goods inspection

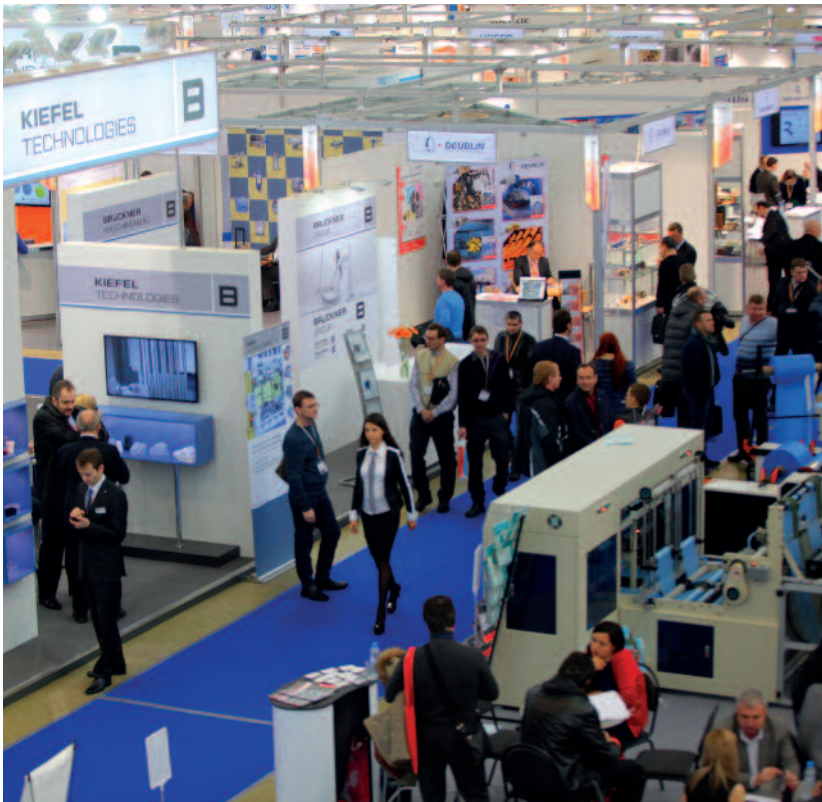
Sensitive end products require a similar reliable control and processing of the raw materials. The transport of the plastic pellets, which are usually transported in large tanker lorries and stored in a silo at the plant, shows some weak points for contamination. For example, the discharge from the transport vehicle to the silo offers potential contamination from dust or other impurities a way. Until now, only samples have been checked manually before the material was processed. But even with the utmost care there might be contamination, which cannot be seen by the human eye – metallic and organic contamination inside the pellets/flakes from 50 µm. Therefore, SIKORA recommends the usage of a PURITY CONCEPT System device for the inspection and analysis with

optical sensors for transparent pellets/flakes and X-ray technology for black pellets/flakes for instance. This is the only way for incoming goods inspections to ensure that the raw material already has the desired quality needed for the end product.

Online measurement up to 50 kg throughput

During the processing of high-quality and therefore high-priced XLPE materials it is often not enough to rely only on sample tests. Here it is useful to integrate an online analysis in the production process. For a low throughput up to 50 kg per hour, which is common during the extrusion of medical hoses for example, SIKORA offers the PURITY CONCEPT System with conveyor belt that can easily be integrated in existing lines. Depending on the model, the device inspects pellets and flakes with optical sensors or by using X-ray technology for contamination from 50 µm before the material enters the extruder.

► www.sikora.net



While Russia's weak rouble, the dramatically declining oil prices and the challenging political situation are affecting the Russian market for plastics, rubber, packaging and process technology, business has by no means come to a grinding halt. Russia and its neighbours still have a substantial demand for investment and an unbroken interest in advanced machinery, production and process technology and high-tech materials. The domestic consumer goods and packaging industry is under pressure to improve its competitive edge so as to substitute the decline in imports. Hence, business owners and industrialists are keen to find out more about innovative technologies and maintain or establish business contacts with suppliers, even if business projects cannot be rolled out immediately.

Crisis does not deter international suppliers to the Russian market

Both Moscow trade shows, interplastica and UPAKOVKA/UPAK ITALIA, record steady visitor flow

Accordingly, there was a keen interest in the two major trade fairs for plastics and rubber, processing, packaging and printing, interplastica and UPAKOVKA/UPAK ITALIA 2015. Between 27 January and 30 January 2015, some 19,000 visitors from Russia, CIS and neighbouring countries attended both events. While many of them were regular visitors, there were also numerous company representatives, who attended the fairs because they expected the current market changes to improve their sales opportunities. About 950 exhibitors from 35 countries presented their products at Moscow's EXPOCENTRE in Krasnaya Presnya.

"Considering the current conditions, we are very happy with these results," Werner Matthias Dornscheidt, Chairman and CEO of Messe Düsseldorf stated. "The fact that so many international exhibitors attended the interplastica and UPAKOVKA/UPAK ITALIA trade shows speaks of great confidence in the Russian market. And their commitment was rewarded by an unexpectedly high number of visitors. This success confirms the significance of both events for their respective industries. In times of challenging political conditions and difficult business relationships, we hosted two major trade shows to ensure that business relations will remain un-

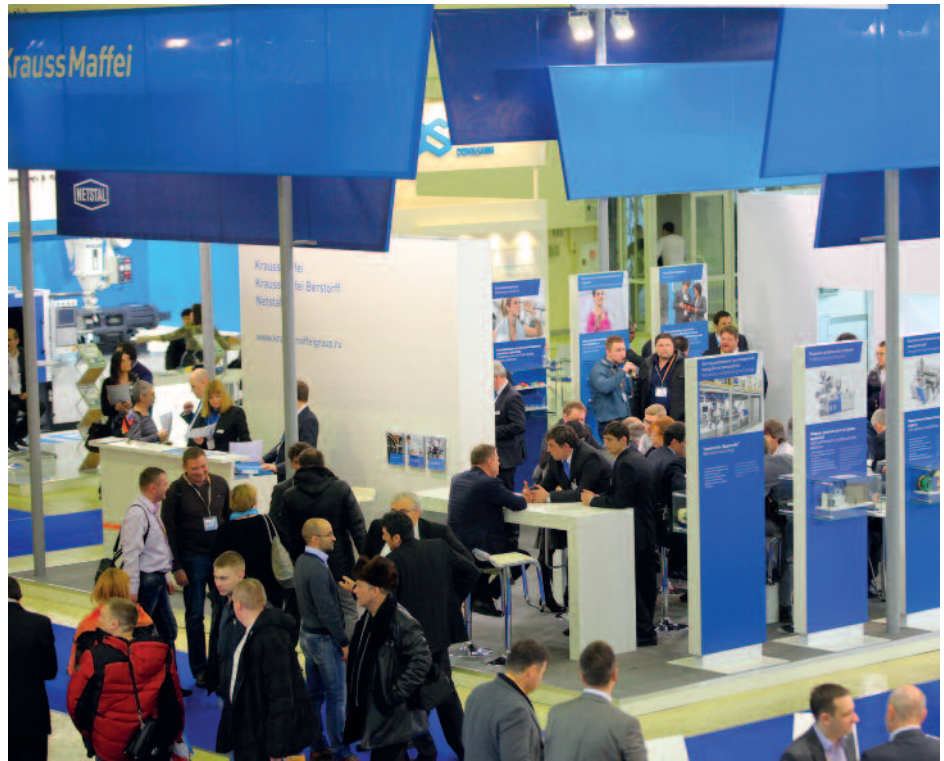
affected." Messe Düsseldorf and its subsidiary Messe Düsseldorf Moskau OOO co-host both trade shows. UPAKOVKA/UPAK ITALIA is hosted in cooperation with the Italian organiser Centrexpo.

Visitors used the four-day event to gather comprehensive information on the current range of international products. They unanimously provided positive feedback on the undeterred attendance of global businesses. In turn, exhibitors were delighted by the keen interest of the trade show visitors who did not seem discouraged by the fact that many Russian businesses are currently dealing with major challenges. Project financing was identified as one of the most detrimental challenges, particularly for medium-sized and small companies.

Despite the drop in orders, Germany has not lost its rank as the most important supplier to the Russian plastics and rubber processing market by far and has retained a market share of 35.5%, followed by China with 14.9% and Italy with 14.7% (2013). The current figures reflect the challenging situation facing the Russian consumer industries: over the first eleven months of 2014, Germany sold plastics and rubber machines worth EUR 141.9 million, down 30.7% on the previous year's results. In 2013, the global export of plastics and rubber machines to Russia only dropped by 4.7% compared to the previous year, totalling EUR 615.7 million.

Bernd Nötel from the VDMA Association for Plastics and Rubber Machinery knows that the Russian market is and remains to be important for German machine manufacturers: "Experts are convinced that Russia's per-capita consumption of plastics products will rise steadily over the next few years. This is a major opportunity for suppliers of high-end processing machines. Investments are planned and necessary, but many projects have been delayed because of the financial uncertainties resulting from the fast-changing exchange rate. However, German suppliers are well aware of the importance of their commitment at this particular point in time and they are willing to attend interplastica in order to personally present new products and maintain good customer relations in these difficult times. Both sides would like to see more diplomatic efforts to defuse the current political conflict and they are unwilling to jeopardize the traditionally good relations between German companies and Russian business partners. Russia still needs to enhance its value-added chain. The raw material processing segment has seen first developments, all be it at a low level."

Mario Maggiani, CEO of Assocomplast, the Association of



Italian Machine Manufacturers confirms the essential importance of the Russian market. "Despite the fact that our exports to Russia have dropped by about one fifth, Russia is and remains to be one of the five most important markets for Italian manufacturers of plastics and rubber machinery. Even though we must anticipate similar results in 2015, none of the Italian companies active in this market intends to withdraw from it. The market has major long-term potential. The current problems are caused by the weak rouble and the massive interest on borrowings for those few companies that were fortunate enough to qualify for loans in the first place." Among the Italian exhibitors at interplastica were many companies with long-standing business relations in Russia, and they are keen to maintain their personal contacts, which still play a major role in the Russian business world. Also attending the event were many visitors from other CIS nations such as Armenia, Kazakhstan, Belarus, Ukraine and Uzbekistan. The wide range of international products and services presented by the exhibitors was enhanced by a support programme that met with a keen interest from visitors of the interplastica 2015. Complementary presentations and discussions with a focus on plastics recycling and bioplastics were hosted at Polimer Plaza in Hall 1. In addition to this, open seminars for exhibitors provided insights into current developments in raw material production and application. The next interplastica will take place from 26 until 29 January 2016 in Moscow, again in tandem with UPAKOVKA/UPAK ITALIA.



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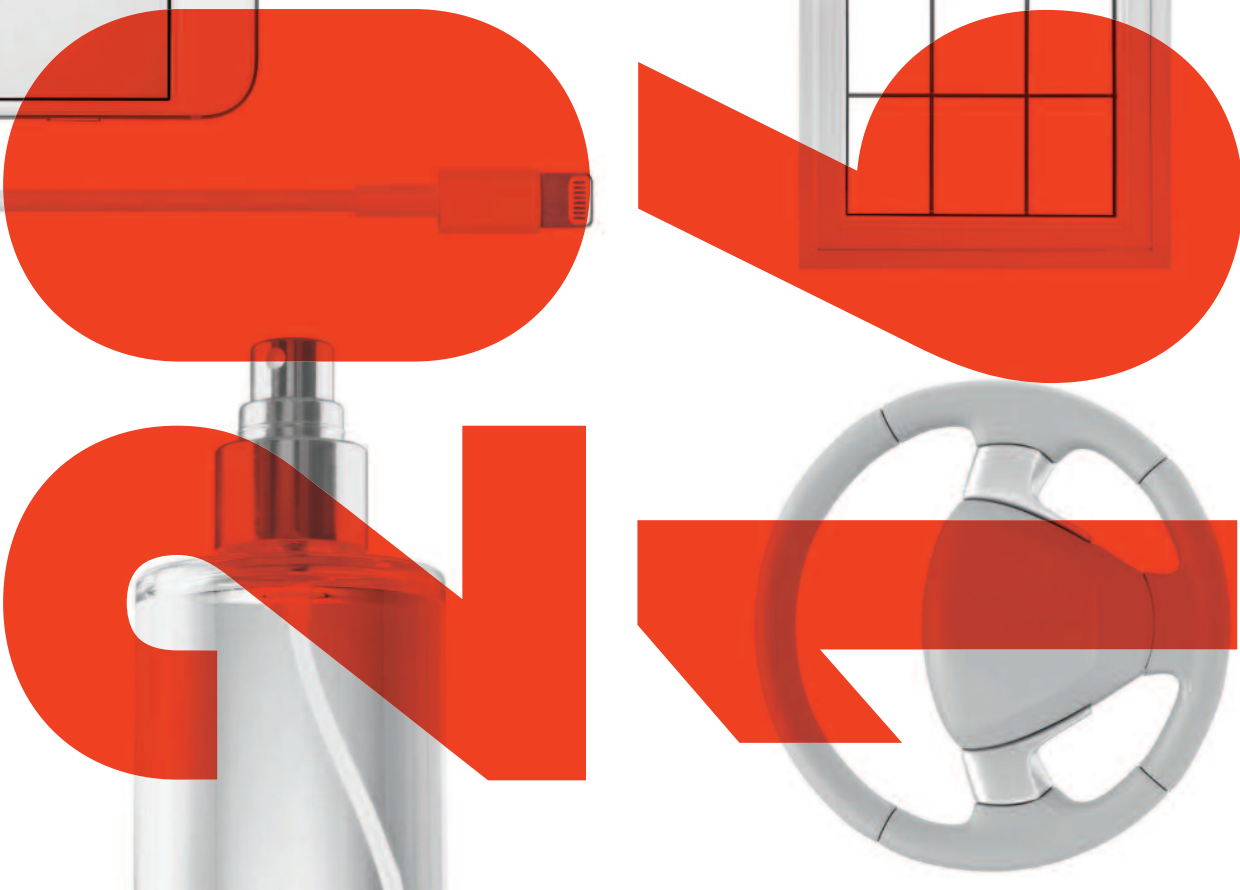


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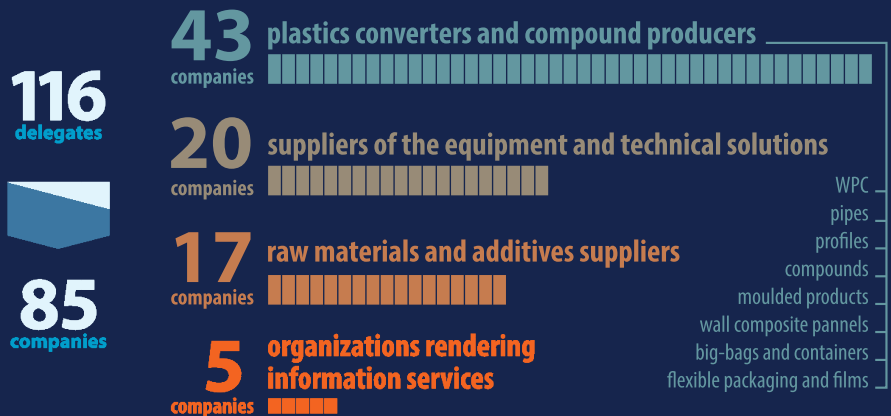
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Statistic of the IPTF in diagram



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