



Newsletter

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Autumn 2016

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*Welcome to the Autumn edition
of our Newsletter'*



MESSAGE FROM THE CHAIR

It seems to me that it was only yesterday when we held our record breaking 10th European Thermoforming Conference in Sitges (Barcelona), however more than half a year has already gone.

On behalf of the European Thermoforming Division I would like to thank all of the attendees who helped to make it one of the most successful conferences we have ever held with over 250 delegates from 28 different countries including Europe, North America, India, the Middle and the Far East taking part.

As in all of our conferences, we are aware that it is the networking opportunities that remain the most important aspect of the event and without doubt, the working lunches, the gala dinner (which included a typical tapas buffet at the stunning "Finca Mas Solers") and also the coffee breaks allowed this to happen.

The Sponsor's Award ceremony took place during the dinner which is the traditional way we thank them and is also an opportunity to remind the delegates that without their support, it would be impossible to organize an event of this magnitude at such competitive prices.

The ETD team has already started to prepare for the next conference which will take place on 2018 and high on the agenda is the selection process of the city where it will take place.

We have also commenced developing the next programme and careful analysis of the delegate's feedback from Sitges allows us to incorporate many of the suggestions made. This process is vital for us as we try and tailor the event to the industry's needs.

Please note that we will announce the location and dates of the 11th Thermoforming Conference in the next ETD Newsletter hopefully enabling you to book your agenda well in advance. We will look forward to meeting you at the next conference or perhaps at the booth of the SPE during the forthcoming "K show" in Hall 11 - Booth E21.

Gabriel Bernar
Chair ETD 2016-18



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19 – 26 October 2016
Düsseldorf, Germany

The World's No. 1 Trade Fair
for Plastics and Rubber



TOUCHPOINT 3D FAB+PRINT AT THE K 2016 COMPREHENSIVE INFORMATION ABOUT ADDITIVE MANUFACTURING

Hardly any technology is currently attracting so much attention as additive manufacturing, which is also called generative manufacturing or 3D printing. Additive manufacturing processes are causing a stir among users in the design and packaging, aerospace and automotive industries as well as in the fields of dental and medical technology and machines and plant engineering. The processes promise great freedom of design and allow individual components to be manufactured with highly complex geometries and internal structures.

A presentation at the K 2013 made many plastics processors aware of the opportunities presented by the direct additive manufacturing of plastic parts with thermoplastics. The technologies have matured to such an extent that they are now sometimes being used to complement or even replace conventional production processes, particularly in view of increasingly fast-changing consumer tastes and trends as well as in view of the new challenges that the industry is facing in regard to the individualisation of plastic products.

The 3D fab+print touchpoint in Hall 4 will be the central location for information about these topics.

This presentation is being organised and manned by Messe Düsseldorf in cooperation with its partner, KCI Publishing BV – a leading knowledge, communications and information company based in the Netherlands. Technology providers and users, exhibitors and visitors, visionaries and practitioners may meet here to swap notes and drive this trend-setting topic forward.

On the K 2016's opening day on 19 October, a short presentation entitled, 'Additive Manufacturing for Individualising Series Products' is going to be given in Hall 6 during the theme day focusing on Industry 4.0 within the special show entitled, 'Plastics Shape the Future'.

Additive manufacturing will be available to see, touch and try out on the 'Wolfgang' FabBus that will be parked in front of Hall 3 throughout the fair.

The FabBus' lower deck is fitted out as a showroom with exhibits and components manufactured using all the usual methods of additive manufacturing. Its top deck is home to eight workplaces with their own CAD computers and 3D printers where visitors will be able to design their own objects, print them in 3D and take them home with them.

www.k-online.com

THE STATE OF THE EUROPEAN PLASTICS INDUSTRY

Despite a host of issues to tackle that range from marine waste to multiple force majeure at materials suppliers, the European plastics industry approaches K 2016 in a good state of health and with cautious optimism. But there are still many hills to climb.

Plastics industry consultant Applied Market Information (AMI) said recently that the European plastics industry "finds itself in another period of upheaval and change as it struggles to pull out of the stagnation caused first by the Great Recession in 2008-2009 and the subsequent Euro zone crisis in 2012-2013." AMI predicts polymer demand to grow at just over 1% per year up to 2019.

Supply side is content

Overall, polymer producers in Europe appear to be upbeat. At Borealis, for example, CEO Mark Garrett says integrated polyolefin industry margins were at historic highs. He notes that polyolefin prices were affected by solid demand combined with a supply shortfall, in particular resulting from unplanned production stops.

Processors are busier

Prospects for the plastics processing industry across Europe appear to be improving, with trade associations in several countries reporting growth. Even in Italy, where consumption has been flat at best for some time, equipment association Assocomplast reports a strong upward trend in orders. In Germany, even after a record year in 2014, the sector still managed to post moderate growth last year. But Dirk Westerheide, president of the country's plastics processing sector association GKV, has lamented major hiccups in supply and very volatile price development of raw materials, particularly polyethylene and polypropylene.

Materials supply has been unstable

Plastics processors across the continent last year found difficulties in obtaining raw materials. Several major



2016

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polyolefin plants in Europe stood still for extended periods, and global economic and trade framework conditions made it difficult for processors to obtain materials on international markets. These factors included not only the relative weak Euro against the US dollar, but also continued strong demand for plastics in Asia and the US. Indications are that price volatility should be lower this year, however.

The situation led to umbrella trade association European Plastics Converters (EuPC) establishing the Alliance for Polymers for Europe, to “provide detailed information on the current polymer market and help assist raw material users through its network of national plastics associations, as well as assist companies in requesting suspension of certain EU import duties to relieve shortages on polymer markets,” according to EuPC President Michael Kundel. In February, The Polymers for Europe Alliance launched its online Europe-wide customers’ satisfaction survey to award the best polymer producers for Europe. “We decided to start the Best Polymer Producers Awards for Europe in order to reestablish a good communication between users of polymers and their suppliers, which has obviously suffered lately,” says Ron Marsh, chairman of the Alliance.

Energy still costs too much

Energy costs are very important for the whole of the plastics industry. Companies across German industry have been particularly vocal in their complaints – prices are among the highest in Europe – and the German chemical industry is also concerned about its falling international competitiveness, especially versus North American companies who have the advantage of shale gas. So many eyes are now on petrochemical giant Ineos, which recently began importing ethane from the Marcellus shale field in the USA into Norway. Europe’s first shale-based polyethylene should come onto the market in a few months. Ineos is also set to begin exploration of shale gas in the UK, although it does not plan any fracking in 2016. It wants to use shale gas for energy as well as a polymer feedstock.

The circular economy

On top of concerns about materials and energy supply, there is also growing awareness in Europe that more needs to be done about use, re-use, and preservation of precious plastics. Late last year, the European Commission adopted what it says is an ambitious new “Circular Economy Package” (CEP), which it says will “contribute to closing the loop of product lifecycles through greater recycling and re-use, and bring benefits for both the environment and the economy.”

The Commission has proposed revisions to legislation on waste. Key elements include a common EU target for recycling 75% of packaging waste by 2030 and a ban on landfilling of separately collected waste. “Less than 25% of plastic waste collected is recycled, and about 50% goes to landfill,” says the Commission.

The PlasticsEurope trade association for plastics manufacturers has welcomed the CEP “as a step closer to resource efficiency,” but it has expressed concerns. “The European plastics industry has been calling for a legally binding landfill restriction on all recyclable as well as other recoverable post-consumer waste by 2025,” it says. “Although a 10% target constitutes a step in the right direction, it remains a timid attempt to put an end to the landfilling of all waste which can be used a resource.” European Bioplastics (EUBP), the trade association for suppliers of bio-based plastics, was more enthusiastic about the report. It says that “forward looking sectors with strong environmental credentials and growth potential, such as bioplastics, need to be promoted.” It predicts that by 2025 production capacities of bioplastics within the EU will have grown twentyfold to 5.7 million tonnes.

A new industrial revolution?

Despite all these concerns, the European plastics industry has its eyes firmly fixed on the future. Many European machinery companies are likely to have the number 4.0 highly visible on their stands at K 2016, as they push their solutions for “smart” factories that operate within the Industrial Internet of Things (IIoT). The 4.0 refers to Industry 4.0, a term invented in Germany in reference to what is perceived as the fourth industrial revolution – and the German government’s plan to make sure German industry is at its forefront. Proponents of Industry 4.0 say it represents a paradigm shift from centralized to decentralized production.

“Industry 4.0 is above all one thing: a tremendous opportunity that we want to take advantage of together with our customers,” says Dr Stefan Engleder, CTO of injection technology specialist Engel. He says he does not consider the word “revolution” to be very appropriate, however. “The changes that we are currently experiencing are more like an evolution,” he says. “For us, Industry 4.0 is not a new idea, but is already long-established daily practice in many areas.” Others in the sector will doubtless agree.

For plastics processors too, new digital technologies offer new perspectives, says the GKV’s Westerheide. “K 2016 will provide an excellent opportunity to explore the advantages offered by the digitization of our industry,” he says.

OMV PROUDLY INTRODUCES ITS RM77 "REVOLVER" THERMOFORMER

The RM77 is a brand new concept: a fully automatic, in-mould trimming thermoforming machine, as any OMV former, designed to produce heavy or light plastic cup and tubs... but with a special "twist" in it.

RM stands for Revolving Mold.

The machine's tools are made of three semi-molds, a female and two males, placed on the same vertical axis.

The female half operates at full cycle speed (start position to end position and back), while the two male halves complete their cycle every two cycles of the female half. The formed material remains in the cavity for an additional cycle, which improves part quality, while having two cavity sets allows for the increase in production speed. Featuring



a single delivery point, OMV integrated a simple stacking and part-handling system into the new machine.

RM77 features both a large forming area and a very high cycle speed.

It is designed to reach world-record 174,000 cups per hour when producing Ø71 mm PP drinking cups

This is the first machine to break the barrier of 50 cycles per minute with PP cups, a major step forward in thermoforming technology.

The machine can process a wide range of materials, such as PS, PP, PLA, PET and multilayer sheet.

It is mainly intended for the production of a vast range of tapered cups and tubs, round and square, but it is excellent for thermoforming of high-precision PP deep objects at very high output.

The forming area of RM77 is 770× 480 mm, its cutting force is 57 tons. It can fit 51 cavities on a Ø70.6 mm PP drinking cup, with an effective speed upto 57 strokes/min. The mould movement is driven through a torque motor. All the other movements (index, cutting, stacking) are controlled through a set of servomotors driven by an axis

control system and a PLC. The system is designed for top performances in terms of speed, precision, safety.

The machine is equipped with a quick mould changing system, fast air/water connections and a quick mould exit from the forming/cutting station (less than 6 hours for a complete mould change-over, from stop to restart).



Visit us in Hall 4 Booth C56

About OMV:

OMV Machinery, founded in 1963, is today part of the Swiss group Wifag-Polytype.

Located in Verona, Italy, it designs and manufactures thermoforming machines, moulds, extrusion lines and different types of automations.

OMV presents itself as a worldwide leader in the thermoforming sector, with the unique feature of being a "one-stop-shop for Process and Technology", taking full responsibility on complete lines and "tailor made" solutions. OMV offers flexible solutions, high quality standards, and high technical concepts. Its "cutting edge" developments resulted in dozens of international patents. Among these, OMV stands out today for:

- T-IML: Thermoformed In Mould Labelling systems
- Shuttle forming machines
- Joint development of the new PEF bioplastic, in cooperation with Avantium/YXY (NL)

With the addition of OMV to its know-how and competence portfolio, Polytype can offer today complete solutions for thin-wall plastic processing from the raw material till the formed and printed container.



Visit us at
K 2016
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RM77 „REVOLVER“ – The fastest on the draw
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THE PLASTICS INDUSTRY IN ASEAN REMAINS UNPERTURBED BY GLOBAL DEVELOPMENTS THAT ARE ALSO IMPACTING THE GROWTH PATH OF KEY INDUSTRIES

The new norm of economic growths and trends such as oil prices, variable supply and demand, and weakening of most Asian currencies against the US dollar, have allowed the region's countries to rediscover their strengths to sustain growth either individually or as a part of the collective grouping of the 10-member ASEAN (Association of Southeast Asian Nation), which comprises Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar and Cambodia.

ASEAN's fertile consumer base with a combined population of over 600 million and a combined GDP of US\$ 2.6 trillion, as well as presence in the global market, enables the region to tap the right opportunities, hinging on the region's rising middle class sector.

One of ASEAN's top export sectors by value is plastics and plastic products earning US\$ 39.3 billion in export revenues in 2013.

The sector's production rates have witnessed a steady average growth over the recent years, especially in the ASEAN-6: Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam, which account for more than 95 % of regional GDP, according to McKinsey & Company.

Vietnam's relatively nascent plastics industry had an average annual growth of 16-18 % between 2010 and 2015. Packaging accounts for 37.4 %, followed by consumer goods (27 %), construction (18 %) and technical products (15 %). Yet, the industry is still at the "low end and of low value", according to Vietnam Plastics Association (VPA), with a majority of exports being plastic bags to Japan. It also relies heavily on imported raw materials, like polypropylene (PP) and polyethylene (PE) resins, importing an average of 4 million tonnes of raw materials while domestic production totals 1 million tonnes. Meanwhile, with a population of over 250



million, Indonesia's government has increased efforts to industrialise and develop the nation towards becoming the world's seventh largest economy by 2030. Its rising middle class, to double to 141 million people within the next five years, will drive plastics consumption. According to the Indonesian Packaging Association, food packaging accounts for 70 % of plastic consumption sales. The Aromatic, Olefin and Plastic Industry Association (Inaplas) has set a 6 % growth in domestic demand for the plastics sector, sustained by an improving GDP of 5.3 % in 2016 and upbeat food and beverage and agribusiness sectors.

One of ASEAN's top exporters of plastic products, Malaysia has over 1,500 plastic production companies that export to Europe, China, Singapore, Japan, and Thailand. The packaging sector accounts for 45 % of the total plastic consumption market, followed by electronics (26 %), automotive (10 %) and construction industry (8 %). However, due to a rise in Malaysia's minimum wage to US\$ 214 per month, plastic production costs have increased within the country by approximately 10 % over the course of 2015.

Thailand's plastic consumption is led by packaging (48 %), electronics (15 %), construction (14 %), and automotive (8 %). Its automotive sector attracts manufacturing opportunities, although its overall cost index (for example, energy, labour, and property) is 20 to 25 % higher than Indonesia, Vietnam and the Philippines, largely because of a high quality and mature automotive manufacturing ecosystem, including tiered suppliers of automotive components. The country has also invested US\$ 60 million into bioplastics development over the past seven years, with the government pumping in 80 % of this investment. Export-oriented Philippines has witnessed weak exports performance, down by 5.8 % in the previous year, because of low demand from its top buyers: the US, China and Japan. The semiconductor and electronics industries account for the majority of the country's exports. Various measures are being instituted to boost exports, such as the Generalised Scheme of Preferences (GSP) of the European Union (EU) that is offering export opportunities to the Philippines by allowing less or no duties on exports to the EU.

Meanwhile, global chemicals hub Singapore, which has been voted the world's most expensive city for expatriates for the third consecutive year by the Economist Intelligence Unit (EIU), offsets its high costs by offering strong connectivity through shipping routes, a developed infrastructure, manpower capabilities and ease of doing business.

Around 95 companies are represented on Singapore's Jurong Island, attracting investments in excess of S\$ 35 billion, according to the Economic Development Board. Providing a plug-and-play environment, the island allows companies to quickly ramp up their operations, helping growth in both upstream and downstream sectors.

Presently, companies like BASF, ExxonMobil Chemical, Lanxess, Mitsui Chemicals, Shell and Sumitomo Chemicals have plants. However, BMI Research expects Singapore to face an uphill climb in 2016, in the face of a Chinese downturn and regional oversupply. Thus, the country is banking on the speciality chemical sector as the next growth area, according to the Economic Survey of Singapore by the Ministry of Trade and Industry (MTI).

Pushing further the region's plastics industry, initiatives are being laid out by plastics trade associations, including the ASEAN Federation of Plastics Industries (AFPI), the Malaysian Plastics Manufacturers Association (MPMA), the Thai Plastic industries Association (TPIA), and the Philippines Plastics Industry Association (PPIA). The associations are working in tandem with international-scale trade agreement blocs, including the ASEAN Economic Community (AEC), the US-led Trans Pacific Partnership Agreement (TPPA), and the China-backed Regional Comprehensive Economic Partnership (RCEP).

The AEC, which was effected 1 January, features liberalisation of goods, investments and services and will enable plastic producing countries like Thailand, Malaysia and Singapore to lower duties on finished plastic products, machines and moulds to other member countries like Vietnam, which buys about 80 % of its plastic materials requirements from Thailand and Malaysia.

Indonesia also imports more than 40 % of its plastics requirements from Malaysia, Thailand, Singapore, Europe, and the US.

The US-led 12-nation TPPA will liberalise trade regulations between the member countries and also eliminate tariffs as high as 25 %. The easier access to overseas markets also post benefits for the countries.

The RCEP, made up of ASEAN members, China, Japan, South Korea, India, Australia and New Zealand, aims to consolidate the existing ASEAN FTAs and tie-ups with the other six partner economies. It will impose a 65 % tariff cut, with the percentage likely to increase to 80 % within a decade. The RCEP could also usher into the Asia Pacific Economic Cooperation (APEC)'s long-time prospect of creating a Free Trade Area in the Asia Pacific (FTAAP).

With these optimistic developments taking place, the ASEAN plastics industry will witness an expansion. In the ASEAN Business Outlook Survey 2014, by the American Chamber of Commerce Singapore and US Chamber of Commerce, Indonesia ranked as the most attractive country for new business expansion, followed by Vietnam, Thailand, and Myanmar. Availability of low-cost labour in countries such as Cambodia, Indonesia, Laos, Myanmar, and Vietnam, renders a competitive advantage. Overall, ASEAN's growing consumer bases, broadening of plastic import and export markets, and expanding foreign trading powers offers foreign investors significant opportunities.

AT THE 2016 K SHOW GABLER WILL EXHIBIT A BRAND NEW MACHINE TECHNOLOGY

With this new development GABLER is making another step to strengthen their position in the market and provide customers with a solution that is a big step into the thermoforming future.

The all new "M100" is the newest model of the well-known and advanced GABLER tilt bed technology. It combines more than 25 years of experience and innovations with state of the art technology.

The following are the highlights of this new machine development:

- Innovative mechanical drive linkage system
- User friendly touch screen HMI
- Reverse Stacker automation
- SpeedFlow form air system
- Enhanced production monitoring features
- Dramatically increased forming area and tonnage

These features result in an increased output of 40% when running most common products, while using similar floor

space and energy to smaller machines.

This presents new opportunities for customers to reduce production cost. The M100 ensures that GABLER continues to lead the industry by building the biggest tilt bed machinery, always with unbeaten reliability and output.

The GABLER team is looking forward to presenting the new line and providing more technical details at the upcoming K Show.

GABLER Thermoform GmbH & Co. KG - Hall 3 Booth D35



Brand new machine technology at K 2016

At this year's K show GABLER is presenting its completely newly developed top-selling thermoformer with tilting tool: PP water cups are manufactured with sealing rim and a diameter of 70,5 mm in a 84-cavity tool. The all new "M100" is the newest model of the well-known and advanced GABLER tilt bed technology. It combines more than 25 years of experience and innovations with state of the art technology. With this new development GABLER is making another step to strengthen their position in the market and provide customers with a solution that is a big step into the thermoforming future.

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These features result in an increased output of 40% when running most common products, while using similar floor space and energy to smaller machines.

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QUALITY ASSURANCE, PRODUCTIVITY AND ECONOMICAL DECORATION ARE DRIVING THERMOFORMING

From large-scale panelling in the automotive and locomotive sectors, covers for medical devices, cups, trays, food and pharmaceuticals packaging, right through to components with complex geometries and functional integration in the twin-sheet process - thermoforming offers solutions for countless industries and applications. The process scores points with its comparatively low tooling costs, the cycle times of both automated roll-fed and sheet-fed thermoforming machines have been getting shorter every year, and with multi-cavity moulds it is possible to realise high unit quantities of cups, covers or packaging in rapid succession. But where is the development of thermoforming machines heading and what trends are occupying the sector?

Optimised processes

Automation is undoubtedly increasing on a continuous basis. The speeds of the thermoforming and stamping process are rising, the reproducibility of the process and 0-error production are of the utmost importance. This is reflected in camera-aided quality assurance systems, the acquisition of all process and machine data, and their constant optimisation during operation. With automated roll-fed thermoforming machines in particular, an increasing number of processors expect the thermoforming machine manufacturer to act as a system supplier. Starting with the ideal film material and the mould design, forming, cutting and stacking, right through to delivery-ready packaging, the products should all originate from a single supplier. Erwin Wabnig, packaging industry manager at Kiefel GmbH, Freilassing,

describes his experiences: "This trend began with the coffee capsules. Today it is a matter of course there, and an increasing number of customers are also requesting such solutions for products with medium batch sizes."



High quality and reproducibility of moulded parts with increasing cycle rates and higher productivity - these are the stated aims of the machine manufacturer.

Machines that communicate with each other, that exchange data with each other, and that also intelligently implement the correct processing program and quality assurance.

T-IML – for decoration and functionality

In the past, thermoformers neglected the topic of in-mould labelling and left the field to the injection moulders. However, for a number of years now the sector has adopted this technology. The T-IML process is very similar to the standard process. Plastics processors are often able to adapt their existing moulds to the new process.

Wabnig explains: "We are impressed with the T-IML process. In addition to barrier and decorative films, we are also able to conceive of a number of further applications. We are therefore presently investing in a large T-IML system for use in our technical centre."

Kiefel Technologies, Freilassing - visit us at our Booth E90 in Hall 3."

SEKISUI PLASTICS USA ESTABLISHES MEXICAN CORPORATION AND OPENS \$7 MILLION MANUFACTURING FACILITY

Sekisui Plastics USA is pleased to announce the establishment of a new corporation in Mexico, Sekisui Plastics Mexico, S.A. de C.V. and the opening of its new \$7 million manufacturing facility in the city of Valle de Santiago, Mexico. The plant, which came on line in July, has a molding capacity of approximately 60 metric tons per month with room for future growth. It will initially produce products molded mainly from Piocelan® hybrid moldable foam resin that are used in automotive applications for energy absorption, light weighting and safety, as well as packaging products for auto parts shipment. It will also produce packaging materials and systems for a variety of industrial and consumer applications.

"This new company headquarters and manufacturing plant in Valle de Santiago gives us the molding capacity we need for our expanding customer base," said Thomas Pontiff, President, Sekisui Plastics USA and Sekisui

Plastics Mexico. "It puts us in closer proximity to both our current and targeted OEM customers who require just-in-time (JIT) delivery."

The 61,000 square foot facility houses administration, customer service, and sales functions according to Alfonso Escobedo, General Director, Sekisui Plastics Mexico. "In the near future we anticipate having technical service, prototyping, tool manufacturing, and raw material production."

"Sekisui Plastics chose to locate its 6-acre plant in Valle de Santiago because it has a good, stable workforce and one that has ready access to shipment via major highways as well as customers and prospects," said Pontiff. The new facility will create around 80 area jobs.

For more information on Sekisui Plastics Mexico, please visit www.sekisuiplastics.com

UPCOMING EVENTS

25th SPE Thermoforming Conference

26-28 September 2016
Schaumburg, Illinois, USA
www.thermoformingdivision.com

Kunststoffen

28-29 September 2016
Veldhoven, Netherlands
www.kunststoffenbeurs.nl

K'Show

19-26 October 2016
Düsseldorf, Germany
www.k-online.com

Euromold / Airtec 2016

25-27 October 2016
Munich, Germany
www.euromold.com

PETnology Europe 2016

7-8 November 2016
Nuremberg, Germany
www.petnology.com

Composites Europe 2016

29 November – 1 December 2016
Düsseldorf, Germany
www.composites-europe.com

Plastivision 2017

19-23 January 2017
Mumbai, India
www.plastivision.org

10th SPE European Additives & Colors Conference

22-24 March 2017
Mestre (Venice), Italy
www.4spe.org

Interpack 2017

4 -10 May 2017
Düsseldorf, Germany
www.interpack.de

JEC World2017

14-16 March 2017
Paris, France
www.jeccomposites.com

SPE ANTEC

8-10 May 2017
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PACKAGING PERFORMANCE AT K' SHOW

Marbach is one of the leading manufacturers of thermoforming tools. For the food industry. For packaging made of plastic. As an exhibitor at the K trade fair. The most important exhibition worldwide for the plastics and rubber industry. In Duesseldorf. Marbach will present its novelties there. Its new corporate design. New trade fair concept. And also the new website. The new image film. The latest brochure. And of course its exciting product innovations. Packaging. Performance. You.

The new company slogan shows, what Marbach stands for. Marketing Manager Tina Dost: "We are a company in the packaging industry. That is setting new global standards for decades. That is innovative. The customers are our focus. We consider it our duty to fulfill their needs. And to delight them. With tool technologies. With service. In every price range. To offer our customers the best performance for their requirements." Online well informed

The new Marbach website is not only interactive. But informative. And intuitive. It contains a lot of information. About the Marbach Group. And its products. Customers can subscribe to the newsletter to remain well informed about current news and activities via mail.



Technology keeps the world turning

The portfolio of Marbach is diverse. The new image movie shows in exciting, short sequences what defines the company. Tina Dost: "We work with extensive experience. With passion. And professionalism. The focus is always on the performance of our customers." Magalog

With the new company brochure, Marbach offers its customers an added value that is truly convincing. This brochure is a combination of magazine and catalog. This means a lot of information for the customers. About Marbach. And its products. An essential reference book.

Innovation

Marbach Vice President Sales Hubert Kittelmann:

"Our customers can look forward to fireworks of innovation. This year, Marbach will present itself with a 90m² exhibition booth at K. And innovations to drastically increase the tool life span. With the MT|easy technology. For multiple cycle numbers. For an efficient reduction of make-ready times. And of course for packaging refinement. With in-mould-labelling. But that's not all. We will also present our new modular system for SR tools.

We can't wait to welcome numerous visitors at our

Booth C35 in Hall 3.



MARBACH

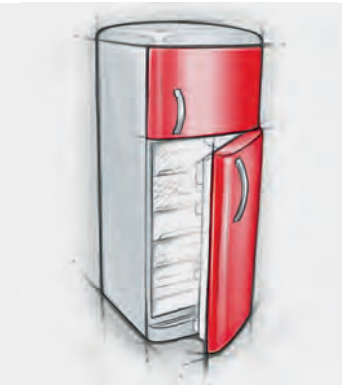
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19th – 26th October 2016
Hall 08a, Booth F09**

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Mission Statement

It is the purpose of the European Thermoforming Division to stimulate and diffuse knowledge of all aspects of the Thermoforming industry. This will be achieved by providing conferences, training seminars and regular topical news bulletins. It will provide a dynamic network platform and encourage and promote technical and scientific participation by its members

The SIEMENS logo is displayed in a bold, teal, sans-serif font. It is positioned in the upper right corner of the advertisement, set against a white rectangular background. The overall background of the advertisement is a complex, futuristic industrial scene with a ceiling of golden, reflective panels and glowing blue and orange digital elements.

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From thermoforming to plastics welding and much, much more, accurate temperature control plays a crucial role for product quality in many manufacturing processes. SIPLUS HCS heating control systems from Siemens have helped to ensure that heat regulate precisely as needed for over 25 years. The I/O systems control electrical heating elements for 230 V/277 V or 400 V/ 480 V networks. They also save energy, space, wiring and engineering time, for example by using the HCS library.

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