BLUecoMPETENCE with resource efficiency. Flying high for success!

Plastics and rubber machinery at NPE 2015

an initiative of VDMA

BLUecoMPETENCE
Plastics and Rubber

Engineering a better world

BLU**eco**MPETENCE **at NPE 2015**
Resource efficiency the key to economic success

Machinery manufacturing is like sports: we have one aim, we want to win. We want our customers to win, to be successful. Resource efficient technology is part of that success. Good sportsmen and women use their resources with that end in view, develop their abilities and improve all the time – that is how they stay ahead of the field. And that is what we make possible with our plant and machinery.

Reject avoidance and long-life top quality plastic products that are increasingly intelligent, making our daily lives easier, are possible only with high-tech machines. They guarantee efficient and stable manufacturing processes and a quick response to demanding customer requirements. The many new developments in lightweight construction are just one example. An investment that in the end more than pays for itself for plant and machinery users.

NPE 2015 is all about sustainability. With the Zero Waste Zone the organiser shows what plastics recycling can achieve throughout the process chain. Here, too, machinery manufacturers are making a major contribution.

This brochure shows a number of case studies of what resource efficiency can look like in plastics and rubber machinery manufacturing, and not only in plastics recycling. Resource efficiency is also deployed intelligently in injection moulding, in extrusion, peripherals and many other fields. If you are interested, you can meet all the suppliers named at their stands at NPE 2015.

The companies listed in this publication are members of BLU**eco**MPETENCE, VDMA's sustainability initiative. They share the objectives of the initiative. One of these is to show that firms in the capital goods industry have been using resources responsibly, and they make a substantial contribution in developing products for our future.

Enjoy reading.

Thorsten Kühmann
Managing Director,
VDMA Plastics and Rubber Machinery

Ina Vettkötter
Project Manager Blue Competence,
VDMA Plastics and Rubber Machinery

http://plastics.vdma.org

Content

Plastic replaces metal

Lightweight construction: combination of long fibres with organic sheet

In order to cost-effectively produce high-strength, fibre-reinforced plastic parts for e.g. the automotive industry, the fibre length is of decisive importance and individual adaptation to the specific component properties is desirable. At the NPE 2015, ARBURG will demonstrate how lightweight parts can be produced in short cycle times with a high level of resource efficiency and functional integration by combining organic sheets and long-fibre direct injection moulding. In this innovative process, the fibres are incorporated directly in the liquid plastic melt. The advantages of this are flexibly adjustable fibre lengths of up to 50 millimetres, a low incidence of fibre damage and significant cost advantages compared to filled granulates. In addition, two organic sheets provide for stability. A six-axis robotic system heats the sheets in the gripper and transfers them to the mould at the forming temperature. On an ALLROUNDER 820 S, which operates particularly efficiently thanks to servo-hydraulics, forming of the insert and injection moulding of the functional and reinforcement elements are performed in a cycle time of around 55 seconds. The result is a thin-walled, high-strength composite part produced in a single step, which weighs only 200 grams at a length of over 500 millimetres – 62 percent less than a comparable die-cast part.

NPE 2015:

West Hall, booth W3729

ARBURG

Further Information:
ARBURG GmbH + Co KG • www.arburg.com

Energy efficiency with AZO's pump management – making the most effective use of an existing pneumatic conveying system

Pump

Using data obtained in conveying tests conducted at the AZO Test Center, it is possible to calculate different requirements for the existing plant with regard to conveying capacity and resulting values such as air volume, conveying pressure etc. Furthermore, the layout (arrangement of plant) has been changed by relocating storage components, optimising the conveying distances and moving the clean air lines. The ensuing necessary pump combinations with frequency converter controls generate energy savings of up to 70%.

Extra costs for planning, integration into the control system, the ROI amounted to 15 months with 4000 operating hours p.a. and just 10 months with 6000 operating hours p.a. This is a very clear example of how existing plants can be optimised in terms of energy consumption so that they achieve long-term energy savings.

NPE 2015:

South Hall, booth S20181

AZO®

Further Information:
AZO GmbH & Co. KG • www.azo.com

Innovative resource-conserving, energy-efficient solutions in profile, pipe and sheet extrusion

For twin screw extrusion, maintenance-free screw and barrel cooling systems and tailor-made wear protection for screws and barrels for longer lifetimes are available.

The Green Pipe concept for PO pipe extrusion uses internal pipe cooling in the helix VSI-T, VSI-T+ or KryoS pipe heads for optimal wall thickness distribution and ovality, as well as reduced sagging, all of which help to save material. The cooling length can be reduced or, alternatively, the line output increased. In the downstream, optimized cooling water recirculation results in energy savings of up to 50 % and water savings of up to 90 %.

For packaging applications, the Multi-Touch roll stack technology offers excellent product quality with lower sheet tolerances that save 2 to 4 % material.

The 75 mm high-speed single screw extruder series requires 15 to 25 % less energy input than conventional systems, with the new adiabatic machines needing another 10 % less.

NPE 2015:

West Hall, booth W1810

battenfeld-cincinnati

Further Information:
battenfeld-cincinnati • www.battenfeld-cincinnati.com/usa

Enhanced process and energy efficiency with servo pump

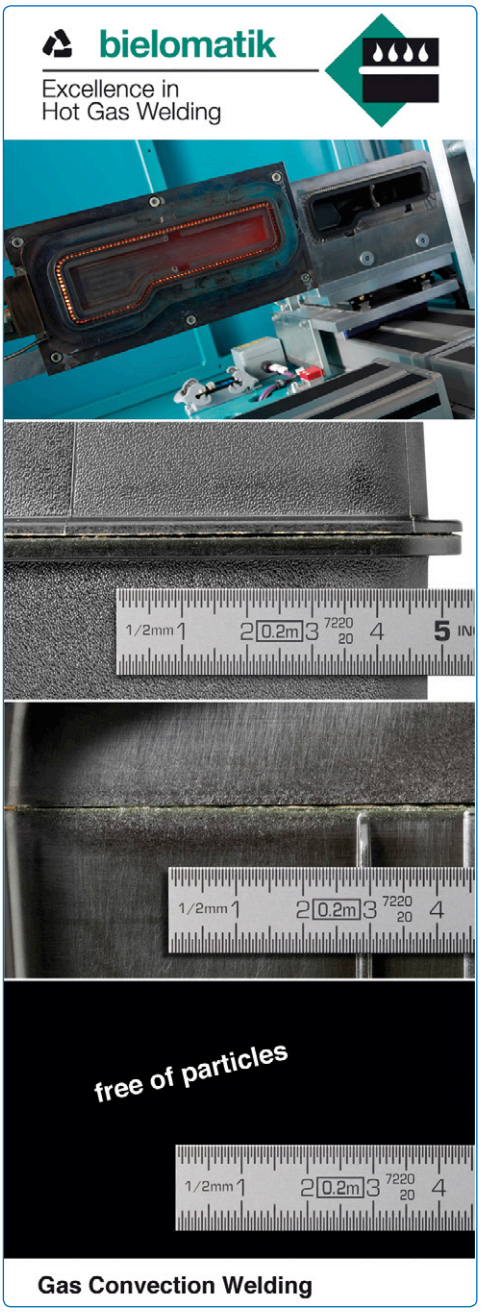
Baumüller servo pumps combine the advantages of hydraulic power transmission and an electrically controlled power actuator. By using controllable servo technology the energy demand especially of injection molding and rubber machines as well as presses and cutting machines can be reduced. In applications with servo pumps the drive only has to provide power if it is actually needed. Energy that until now dissipated as heat can be fed back into the power system. Thus the energy efficiency increases significantly. Compared to traditional drive systems the servo pump may reduce a machine's energy consumption by approx. 30 % – in machines with long cycles a decrease of up to 80 % is possible. In addition, the processes are controllable and precisely reproducible, and there is nearly no need for expensive valve technology that requires intensive maintenance.

NPE 2015:
West Hall, booth W2393

BAUMÜLLER

Further Information:
Baumueller-Nuermont Corporation • www.baumueller.com

Increased energy efficiency in thermoplastic welding



For quite some time now in the joining of thermoplastic materials, so called contactless welding principles have gained in popularity. This is mainly attributable to an increase of the cleanliness requirements of the welded components. While classical friction based welding principles such as vibration welding create quite a large amount of particles, such debris is entirely absent in contactless welding so that highest cleanliness is a given. Up to now, contactless welding is utilizing convection heat created by short or medium wave infrared heaters. As such, convection heat needs electrical power derived from fossil fuels. A direct use of fossil fuels would eliminate this transformation and be sustainable as it avoids costly energy transformation and generation losses. As such, it will lead to a better energy balance and higher process efficiency.

Bielomatik Leuze has developed a Hot Gas welding principle, which utilizes the convection heat of a natural gas flame. The Co_2 emission per Kilowatt hour is 50 % of comparable fossil fuels. In addition, the energy cost for a kilo Watt hour of natural gas is considerable less expensive when compared with electrical energy.

NPE 2015:

West Hall, booth W4475

bielomatik
We look further.

Further Information:
bielomatik Leuze GmbH + Co. KG • www.bielomatik.de

New line concepts for reduced energy consumption and raw material usage

In all film stretching lines, Brückner Maschinenbau continues to optimize the possibilities for energy savings. The measures presented at NPE:

- Low energy twin screw and high speed single screw extrusion systems
- TDO heat recovery system
- Direct drives
- Regenerating energy for line drive systems

Highlight will be the "Intelligent Line Management" (ILM) including an energy monitor for measuring and analysing the energy consumption of the film production process based on the international standard ISO 50001.

Sustainability in film production also refers to reducing raw materials usage, decreasing the number of process steps and processing bio-based and bio-degradable raw materials. At NPE Brückner will show latest developments:

- Down gauging of films while still achieving excellent film performance to reduce raw material consumption
- Manufacture of ultra-high barrier films (UHB) based on a multi-layer extrusion process to reduce subsequent process steps
- New lines and upgrading solutions for existing lines for BOPLA film production

NPE 2015:
West Hall, booth W4763

BRÜCKNER MASCHINENBAU
A Member of Brückner Group

Further Information:
Brückner Maschinenbau GmbH & Co. KG •www.brueckner.com

High efficiency for large capacities

Intelligent railcar loading system for polyethylene pellets

In cooperation with Erhard Muhr GmbH, Brannenburg, Germany, Coperion introduces at NPE 2015 a new railcar loading system for polyethylene pellets. Four loading stations will load railcars with a loading capacity of up to 400 tonnes/h in 20 minutes or less to a filling efficiency of minimum 95%. The high loading efficiency and capacity is achieved with patented product spreading technology, using a novel spreader blade form that uses recoil forces to gently accelerate the pellets and propelling them into the far corners of the railcar compartments. Extensive tests with the new blade form have proven the high rate and filling efficiency as well as the gentle handling of the product characterized by a comparatively low spreader rotation speed.

An intelligent control system is fully interfaced with the railcar scales and automatically adapts the filling process to the individual product characteristics. It also regulates the filling of the larger outer and smaller inner railcar compartments proportionately – and ensures the highly efficient use of available capacity.

NPE 2015:

West Hall, booth W1329

coperion
confidence through partnership

Further Information:
Coperion GmbH •www.coperion.com

It’s your choice to be a winner! – Enabled by lightweight construction

Productivity, product quality and sustainability see new record marks set by ENGEL at NPE2015. One highlight is the plastic brake pedal with optimised geometry and stress-resistance with which ENGEL and its partner ZF-Friedrichshafen have set a new milestone in automotive lightweight construction. Using a vertical ENGEL insert 1050H/230 single US injection molding machine with an integrated ENGEL easix multi-axis industrial robot and infrared oven, continuous fibre-reinforced thermoplastic semi-finished products will be heated, preformed in a mold and immediately overmolded with polyamide. The system produces ready-to-fit components in one step.

Compared to conventional steel brake pedals, the component weighs around 30 % less without impairing load-bearing capacity. Moreover, the lightweight construction method makes many process steps superfluous, thereby increasing energy and resource efficiency.

A first round of serial production of brake pedals made of thermoplastic, fiber-reinforced composite material started in 2014—for use in sports cars.

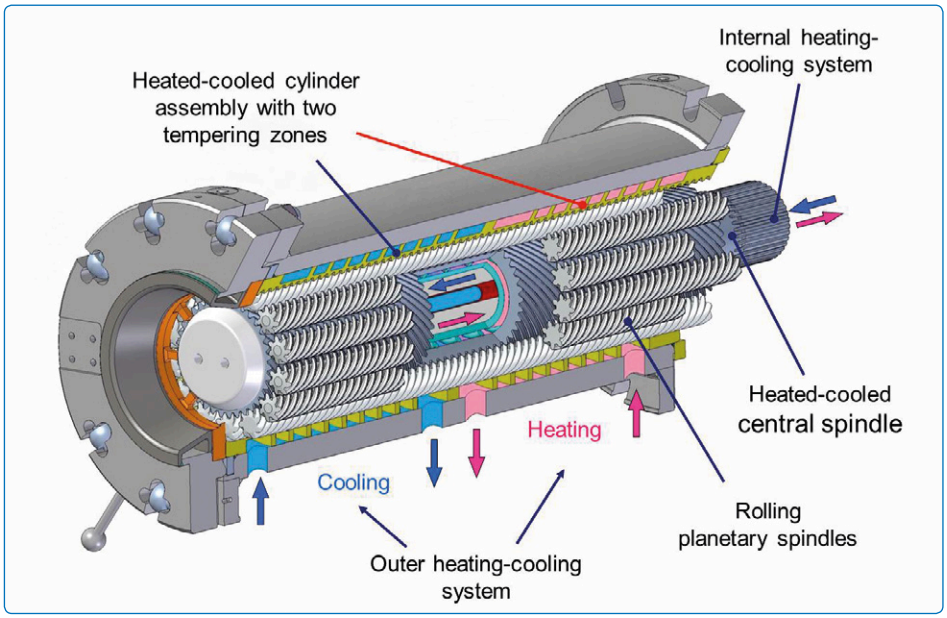
NPE 2015:

West Hall, booth W1303

ENGEL

Further Information:
ENGEL AUSTRIA GmbH • www.engelglobal.com

The planetary roller extruder – a universal genius!



The planetary roller extruder found initially application in the PVC-calender industry. Since 1986 ENTEX have consequently developed and perfected this process. By initiation of the heat transfer by means of pressurized water and an ameliorated construction of the cooling channels enabling a product-close temperature guidance and therefore having decisively influenced the heat transfer, this system has also been accepted more and more in other fields of application.

Today, the planetary roller extruder is not longer only the classic compounding aggregate for the PVC industry, but covers the whole bandwidth of the compounding and reaction technology in the following industries:

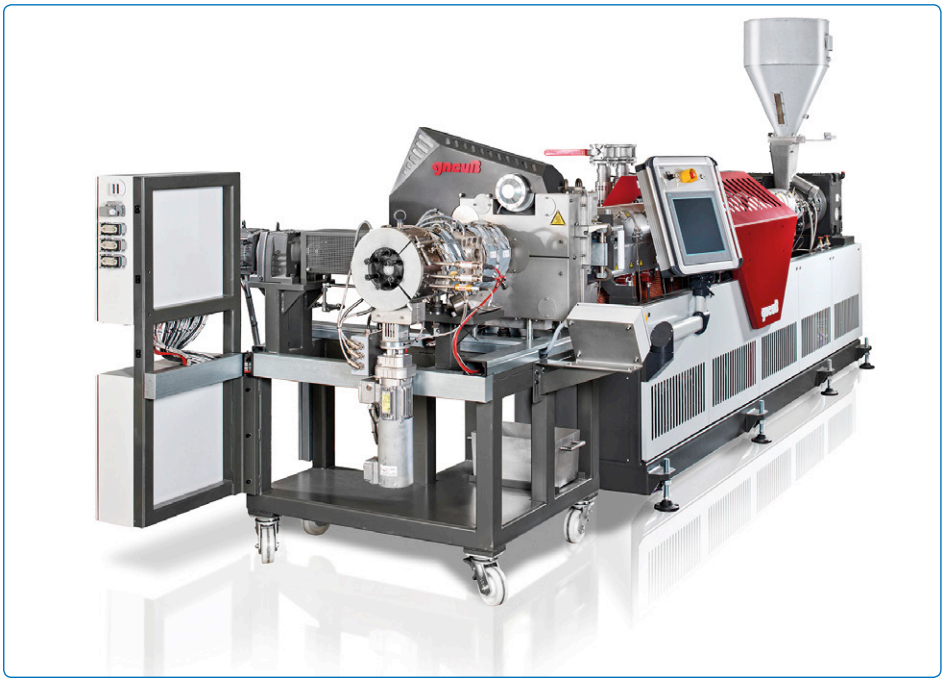
Plastic Industry – e.g. all kinds of PVC formulations, ABS, TPO, TPU, filled polyolefines, Prepex, biopolymers,processing of caoutchouc, elastomer adhesives, etc.,
Colour Industry – e.g. epoxy-, polyester-, acrylic and similar lacquers,
Chemical Industry – e.g. blends with endothermic / exothermic reactions
Food Industry – e.g. cocoa – sugar – dispersion, special malts
Pharmaceutical Industry - e.g. pelletizing of hydrophobic and lipophil active ingredients
Special applications – e.g. sludge compounding, WPC

NPE 2015:
South Hall, booth S19085

ENTEX®
The Planetary Roller Extruder

Further Information:
ENTEX Rust & Mitschke GmbH • www.entex.de

Processing technology:
Unique MRS extrusion line at NPE



Since the last years, the Multi Rotation Extrusion System has established itself as one of the key technologies for processing PET reclaim without pre-drying.

The patented **MRS Multi Rotation Extruder** offers completely new possibilities with regard to the efficient degassing and extrusion of polymer melts. Additionally, this system also offers excellent dispersion performance for the introduction of gases and/or all forms of additives.

One major advantage of the MRS Extruder is that it permits the processing of PET without pre-drying but by using a simple water ring vacuum system to process the PET to a high quality product.

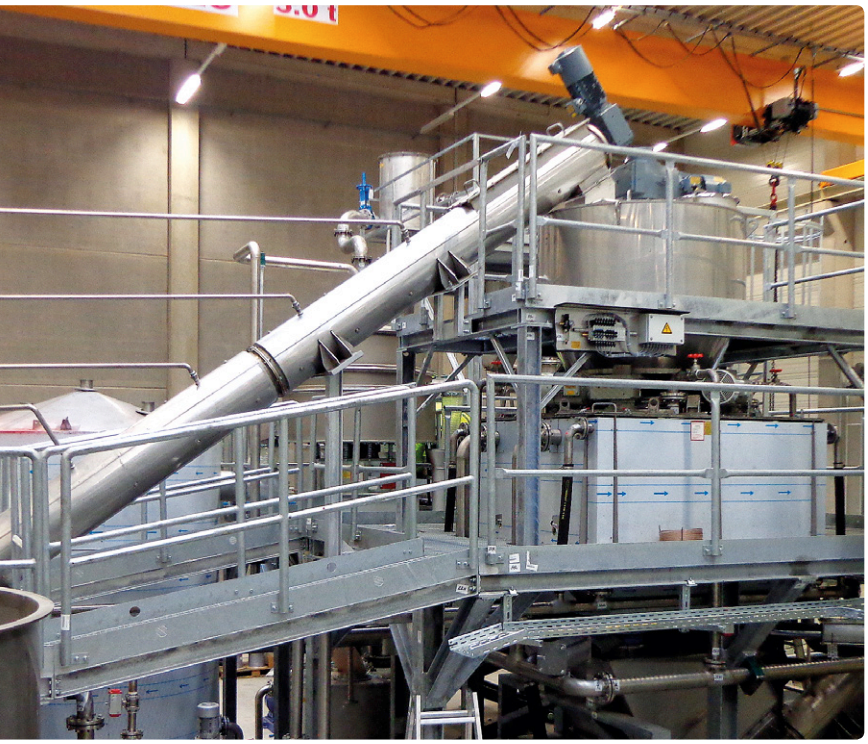
With its fully-automatic, process constant operation and its unique and patented segmental back flushing system, the **RSF*genius* Filtration System** offers unmatched performance with regard to product quality and efficiency. The new RSFgenius M is a variant which is now available for the processing of highly contaminated materials. The innovative synchronisation of the drive and back flushing systems of the RSFgenius Rotary Filtration System enables a major increase of the screen area exchange rate.

NPE 2015:

West Hall, booth W4675

Further Information:
Gneuss Kunststofftechnik GmbH • www.gneuss.com

Efficient recycling solutions for highly contaminated or mixed materials



Herbold hot washing step (PET bottle)

HERBOLD MECKESHEIM GMBH is one of the pioneers and market leaders for the manufacture of post-consumer plastics recycling plants. As early as 35 years ago, the first plants for the recycling of contaminated mixed plastic waste were manufactured and many of the state-of-the-art solutions in this field had their first appearance at the site of HERBOLD MECKESHEIM GMBH. As classic examples wet size reduction, drying technologies and many other components can be cited. In the meantime market requirements have increased; today HERBOLD MECKESHEIM is even able to propose solutions for considerably higher contaminated materials, among many other examples, the recycling of agricultural film can be mentioned. Due to the high pollution load, recycling is difficult. These are the challenges: extremely high wear and tear, film thicknesses getting thinner and thinner, LLDPE stretch film which is extremely difficult to recycle and the resulting drying process. Only few manufacturers can cope with these challenges and are able to propose economic solutions.

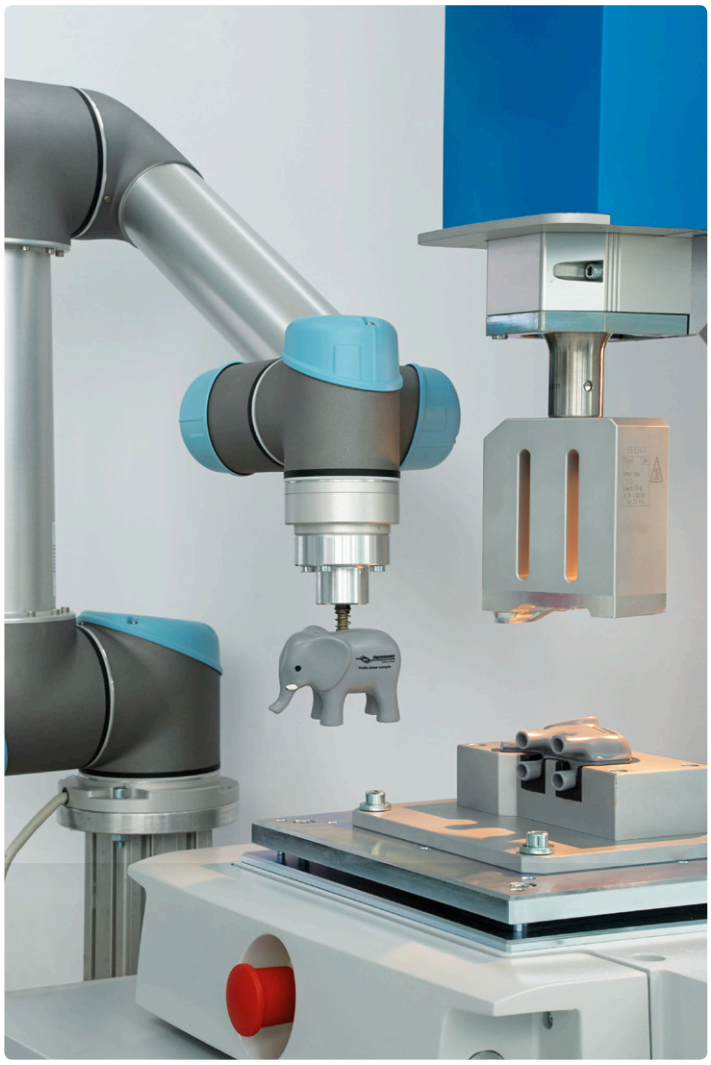
Every day HERBOLD MECKESHEIM develops new solutions in its technical laboratory where also a production-scale washing line is in operation. Customers can have a demo with their waste materials and the samples will show the future quality of the material when processed in real-life operation – a decisive argument for a low-risk investment.

Plants from HERBOLD MECKESHEIM are based on a modular design and can easily be adapted to changing requirements, e.g. a hot washing step can be retrofitted if customer is eager to eliminate remaining glue and odour-related problems.

NPE 2015:
West Hall, booth W7791

Further Information:
Herbold Meckesheim USA Resource Recycling Systems Inc.
www.herboldusa.com

Protecting resources has arrived in ultrasonic welding



Ultrasonic welding technology is environmentally friendly. Compared to other thermal joining procedures, it saves 75% of total energy consumption.

Our passion for ultrasonic welding technology drives us to constantly set new standards. While delivering a superb welding process we are also dedicated to safety and a reduction in non-productive times. One trend towards safety enhancement in regards to material and people is integrating other processes and auxiliary functions and thus supplying supplementary functions from a single source.

At NPE 2015 Herrmann Ultrasonics will demonstrate process interlinking of several production steps: a standard modular ultrasonic welder HiQ DIALOG will be shown in combination with a touch-sensitive small-scale robot. The robot allows for efficient multi-axle handling of applications. To connect an optical test device and a marking device for traceability would be feasible as well.

The ultrasonic welder HiQ DIALOG machine is equipped with features to be gentle on the part and to be gentle on man power and resources as well. At the heart of this machine is the new pneumatic HMC drive system. It combines the benefits of pneumatics with the dynamics of an electrical drive, allowing the user to choose any starting point for the weld process. Supported by the SoftTouch mode, sensitive joint designs on plastic parts to be welded, are protected from impact when the sonotrode makes contact. The process-oriented user interface guarantees high usability.

NPE 2015:
West Hall, booth W6581

Herrmann Ultrasonics 25 years

Further Information:
Herrmann Ultrasonics, Inc. • www.herrmannultrasonics.com

Less energy, more power
KBB series sets new consumer packaging standards

Packaging manufacturers are facing constantly increasing requirements. Along with design and functionality, more and more manufacturers are turning their attention to energy efficiency.

Kautex Maschinenbau understands how requirements are changing and sets new standards with a pioneering machine concept. The innovative overall design concept of the KBB machines includes extremely short dry-cycle times combined with reasonably energy savings. Ideal conditions for highly-efficient production at highest energy savings.

Compared to conventional production systems, KBB machines achieve a reduction of 25 % in the dry cycle time. Usually, higher performance requires even higher energy consumption, but the KBB machines use lighter materials for the moving mass. In this way it is possible to increase not only the performance, but also to reduce the required drive power.

In addition a system for recovering energy feeds back into the machine or the processor's network via an intermediate circuit.

NPE 2015:
West Hall, booth W1551

KAUTEX MASCHINENBAU

Further Information:
Kautex Maschinenbau GmbH • www.kautex-group.com

DESMA ServoGear.
The new hydraulic generation:
Energy saving, quiet, precise

Trend-setting drive concept of injection molding machines for elastomers. Each servo axle of the ***ServoGear*** hydraulics accommodates two differently sized constant pumps, which depending on speed and pressure can be operated individually or jointly. Both at extremely low and extremely high speeds, the three-speed gear permits an accurate control – with simultaneously clearly reduced energy consumption.

Optimising the energy consumption of production cycles. All in all, approx. 45 % of hydraulic energy can be saved, which corresponds to a reduction of the overall consumption by approx. 10 to 13 %. The optionally available ***EnergyControl*** software additionally leads to a drastic reduction of the peak load consumption.

However, the innovative DESMA ***ServoGear*** hydraulics also reduces the noise emissions. For parallel movements, a second servo axle with ***Servo Gear*** technology is for instance available which ensures super-silent operation of the DESMA horizontal machines.

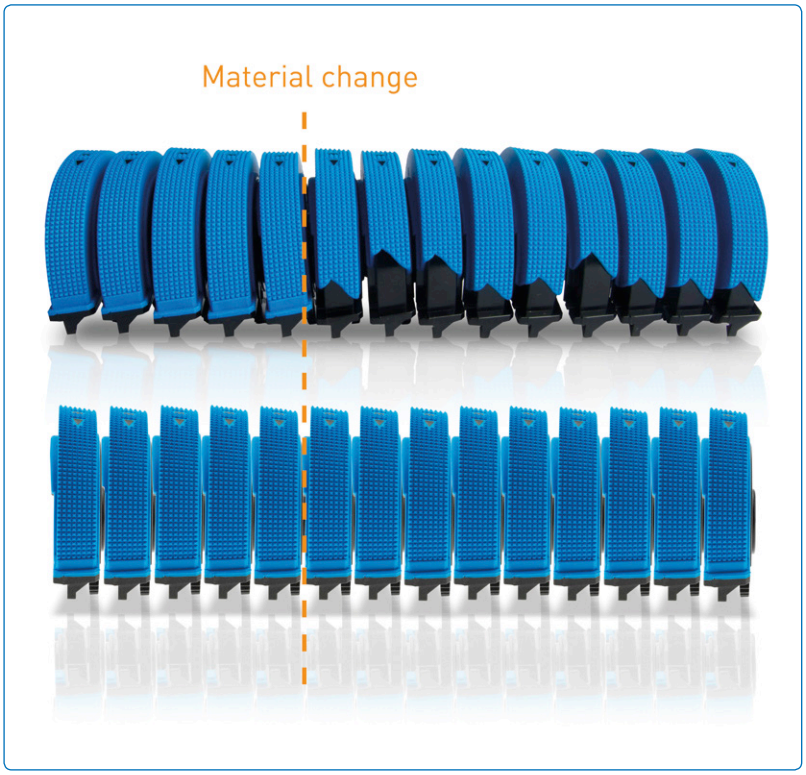
NPE 2015:
West Hall, booth W1723

DESMA

Further Information:
Klöckner DESMA Elastomertechnik GmbH • www.desma.biz

Less scrap – more productivity

New Adaptive Process Control System (APC) – accelerates zero-defect production in injection moulding



After a material change, injection molding machines without APC show significant fluctuations in output quality (top) whereas constant good quality can be achieved with APC (bottom).

New Adaptive Process Control system (APC) accelerates zero-defect production in injection molding

The APC (Adaptive Process Control) machine function from KraussMaffei immediately compensates for fluctuations in the injection molding manufacturing process triggered by external factors such as changing temperatures, climate conditions or batches. Processors benefit from consistently high component quality. APC is offered on all electric and hydraulic series from KraussMaffei.

The APC function adjusts the changeover point and the holding pressure profile in each cycle to the current melt viscosity and current flow resistance in the mold. This makes it possible to compensate for deviations in the same shot. This leads to significantly lower fluctuations in article weights. Along with improvements to general process stability during ongoing production, APC also provides advantages when restarting production after machine downtime. Furthermore, injection molding machines with an APC function also enable reliable processing of high quantities of recyclate, which often cause fluctuations in viscosity.

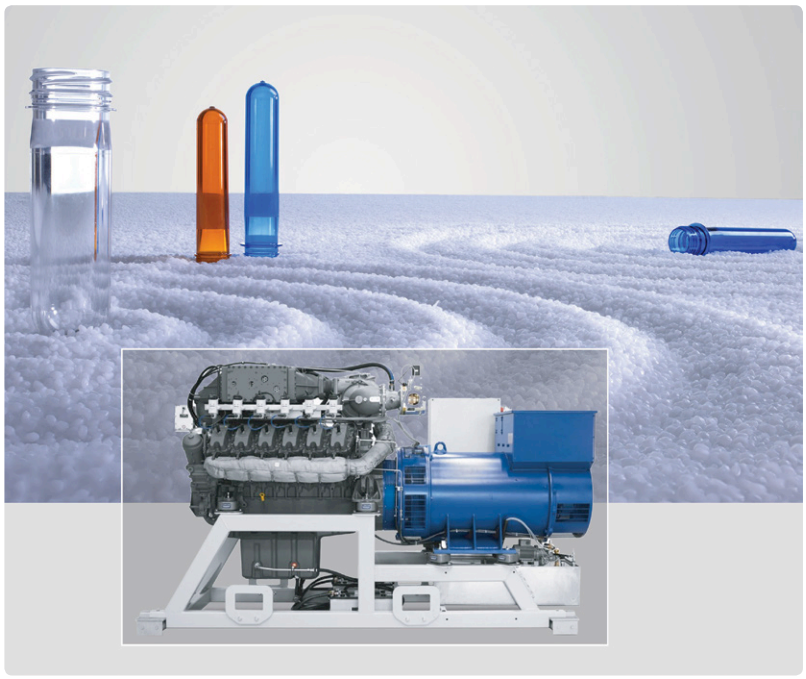
NPE 2015:

West Hall, booth W903

KraussMaffei

Further Information:
KraussMaffei Technologies GmbH • www.kraussmaffei.com

Alternative energy generation for material drying with combined heat and power (CHP)



Combined heat and power generator for plastics processing

Drying systems consume an extremely large quantity of energy when used for the pro-cessing of plastics. The units for dehumidifying, transporting, and heating air are usually electrically powered, with the required electricity being supplied by the national grid from large scale power stations. Because even the most efficient drying systems have a high energy consumption, motan has developed a decentralised combined heat and power concept (CHP) for energy generation. These systems convert a primary energy source (generally natural gas) to energy (both electrical and heat) that can be used in production, and they are significantly more energy efficient than systems that are centerally supplied with only electrical energy.

The energy required to heat the dry air is generated by a combined heat and power generator (CHP generator) and is conducted to the drying bins directly via a heat ex-changer. At the same time, the electrical energy generated is used in other plastics processing applications. Surplus thermal energy that is too cold for the required drying temperature can also be used in other production processes (e.g. heating of objects, hot water production, conversion into cooling energy, etc.). This type of integrated multi-energy generation technology enables the highest possible energy efficiency.

Energy calculations taken from actual examples show that these concepts are always more economical, when taking account of material and application specific drying requirements or the price difference of the primary engery in comparison to centrally supplied energy, and amortise surprisingly quickly.

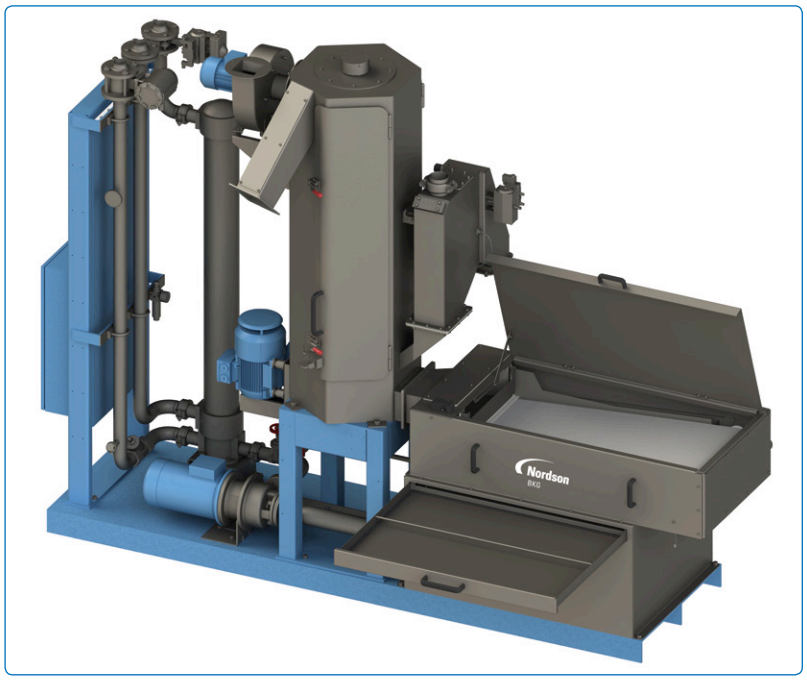
NPE 2015:

West Hall, booth W3315

motan®

Further Information:
motan Inc. • www.motan.com

New belt filter system for underwater pelletizing



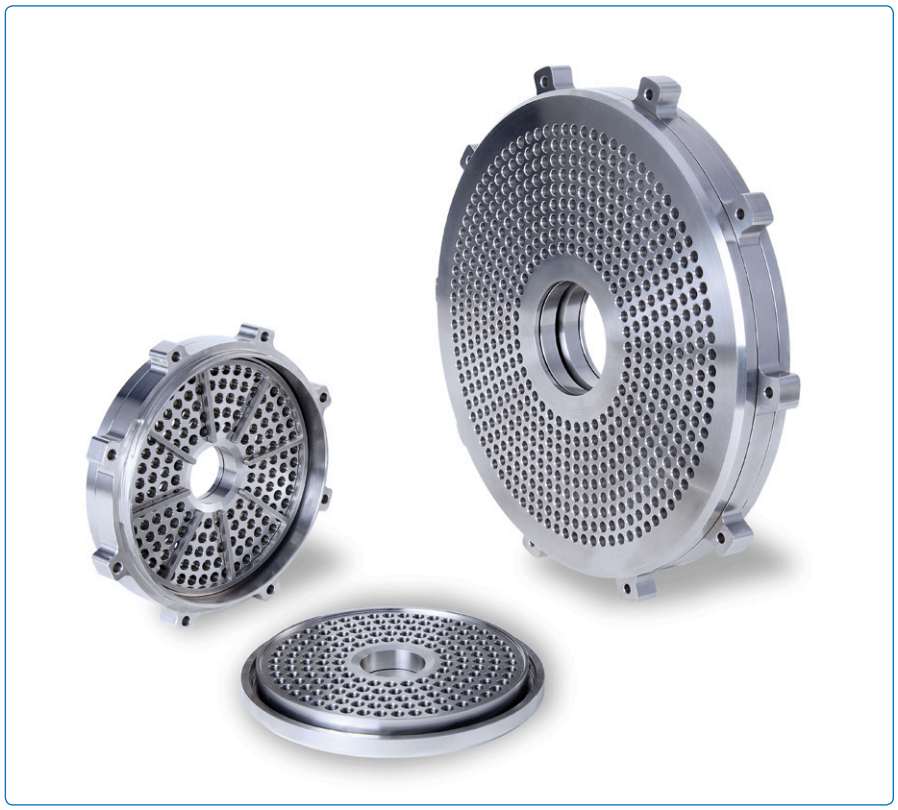
A new, optional belt filter for the Nordson BKG™ Master™ temperature-controlled water system for underwater pelletizing provides continuous, automated filtration and has a finer filter mesh (150 µm versus the older 200 µm). The belt is cleaned continuously by spray nozzles, and a belt change takes about 30 min. The filter can be retrofitted to older systems. With a throughput of 30 m3/hr, it can be used with pelletizing systems of up to 2,000 kg/hr.

NPE 2015:
West Hall, booth W6263

Nordson BKG

Further Information:
Nordson BKG GmbH • www.nordsonpolymerprocessing.com

New filter cartridge: User-friendly handling and longer life



A new filter cartridge for Nordson KREYENBORG screen changers has a robust, stable structure that withstands the high mechanical stresses of production startup. Rheological optimization of the cartridge design eliminates stagnation zones and makes possible 100% utilization of the open filter area, prolonging filter life. The symmetrical structure of the filter cartridge facilitates secure and user-friendly handling and easy replacement of screen media without cleaning.

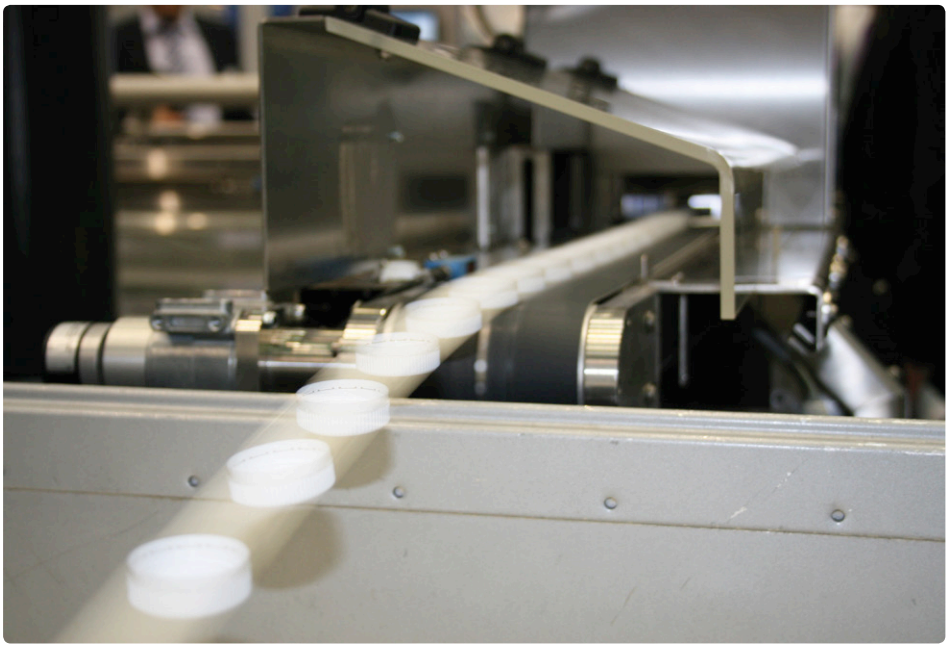
NPE 2015:

West Hall, booth W6263

Nordson KREYENBORG

Further Information:
Nordson PPS GmbH • www.nordsonpolymerprocessing.com

Sumitomo (SHI) Demag demonstrates a record in the manufacture of screw caps



PE-HD screw caps for mineral water bottles, produced in a stable process with a 96-piece mould on the fast running machine El-Exis SP 420 in a cycle time of under 2 s.

With the El-Exis SP, Sumitomo (SHI) Demag has meanwhile set the standard in packaging injection moulding, with regard to dynamics, speed and durability. This machine can perform the fastest process and injection movements with high precision and safety - during the production of standard caps, as well as thin-walled and packaging parts with minimum tolerances, as well as precision applications with high injection pressures.

The performance will be demonstrated at NPE 2015 with the production of PE-HD screw caps using an El-Exis SP 420-3000 (clamping force 4,200 kN). For this, a 96-fold hot runner mould is used for the 1.2 g light 28 mm caps with tamper-evident protection for still mineral water. A barrier screw with an L/D ratio of 25:1 delivers the necessary dosing capacity with sufficient reserves; a special backflow barrier ensures process safety and high reproducibility. With the hybrid drive technology, with activeAdjust optimised movement of all axles and the further developed machine control NC5 plus, this cap production already achieved a cycle time of approx. 1.8 s. The application has been further optimised.

NPE 2015:
West Hall, booth W623

Sumitomo SHI DEMAG

Further Information:
Sumitomo (SHI) Demag Plastics Machinery GmbH
www.sumitomo-shi-demag.eu

VECOPLAN HydroDyn washing technology: New dimension of high grade and economic plastics recycling

VECOPLAN HydroDyn denotes the new system that combines shredding technology, washing method and drying procedure of various plastic materials in a closed, elaborated process.

- Hydro dynamic cleaning of most different kinds of heavily soiled feeding material:
  - Film
  - Stretch film
  - Hard plastics
  - Packagings
  - Technical plastics
  - Highest degree of purification with integrated hot washing
- Energy efficiency by use of process heat, powerful drive concept and optional tool geometry
- High purity output material without any chemicals
- Washing system with integrated wastewater treatment

Once again VECOPLAN AG, the solution provider for highly complex and complete plant systems in the environmental and recycling market, sets a milestone with innovative process technology. VECOPLAN is the exclusive supplier of this new technology worldwide, thus, opening a new business segment within the market of plastics recycling.

NPE 2015:

West Hall, booth W6773

Vecoplan®

Further Information:
Vecoplan AG • www.vecoplan.de

Size reduction from start to finish: WEIMA to return to NPE in 2015

The WEIMA **WLK10** will be on display featuring the robust WEIMA gearbox and 4-sided serrated ram. It will include an E Rotor design, which is ideal for shredding film and fiber. Conversely, the brand new **WLK1000** will be on display featuring a V-Rotor design, which is perfect for the various forms of hard plastic scrap. The drop-down screen basket makes changing the screen on this machine much easier. The model on display will also show a pipe-spacer hopper design. Both the WLK 10 and the WLK 1000 come standard with a 14.5 " rotor diameter.

The largest machine at the WEIMA booth will be the **WLK20 Jumbo**. This machine will be equipped with an F+ Rotor design. This rotor is ideal for processing a mix of film and hard plastics. The Jumbo will have a platform next to it so that booth visitors can view inside its massive hopper.

WEIMA will also be running a two-stage shredding system throughout the show. A WEIMA **WLK4** will be feeding an **NZ Granulator** and the finished product will be discharged through an air system. Spectators will be able to view the entire size reduction process from start to finish.

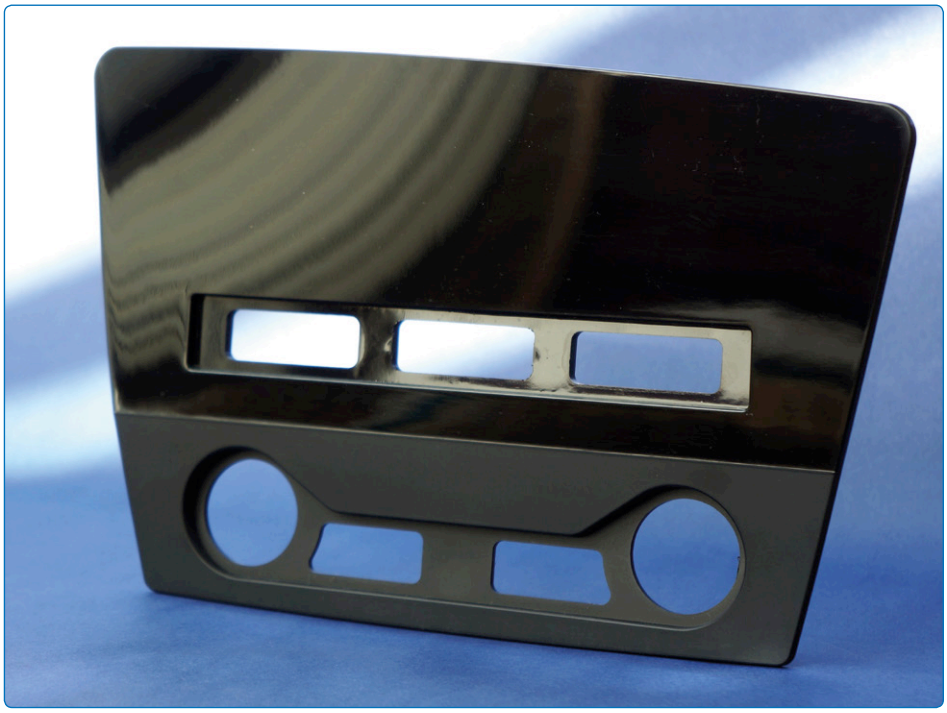
NPE 2015:

West Hall, booth W5391

shredding + briquetting

Further Information:
WEIMA America, Inc. • www.weimaamerica.com

Lightweight construction and integrated surface technology make for efficient use of resources



Cover plate for the automotive industry, manufactured with CELLMOULD® and VARIOMOULD® technology from WITTMANN BATTENFELD

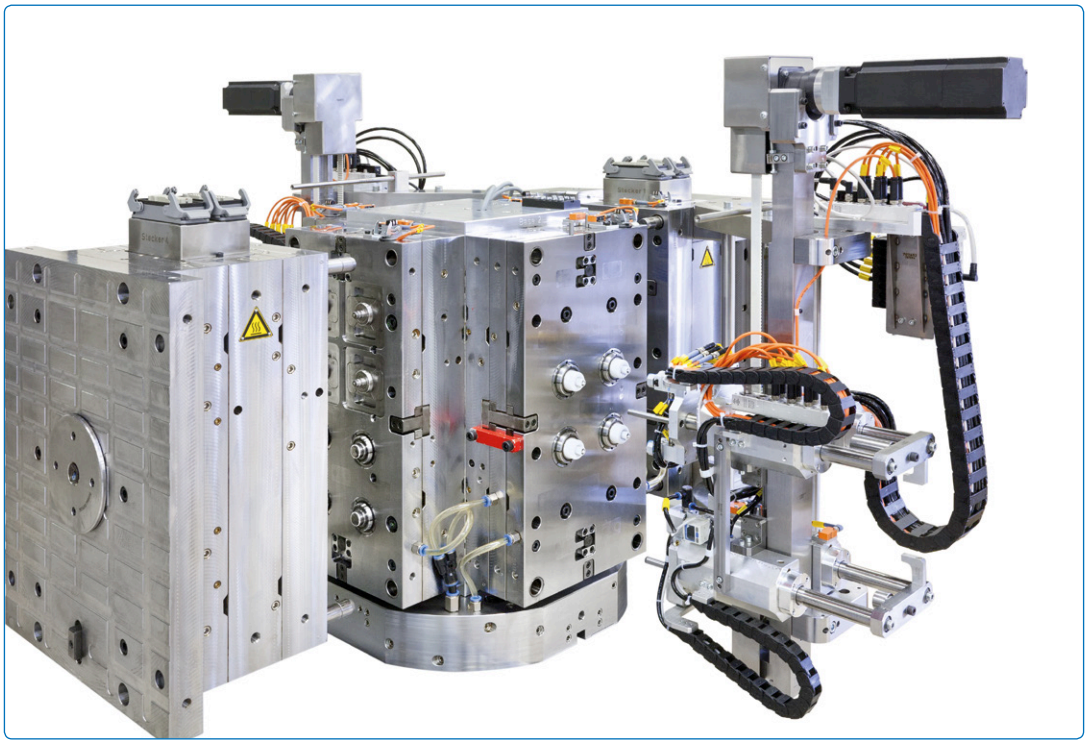
On an EcoPower 240/1330, components for automotive interiors are manufactured using structured foam technology, in cooperation with Schaumform, Germany. For this application, the WITTMANN BATTENFELD processes CELLMOULD® (structured foam technology) and VARIOMOULD® (variothermic technology) are used, which make it possible to produce light-weight structured foam parts with a high-quality surface. The temperature controller required for the variothermic process is operated directly via the machine's control system.

Foamed parts in automotive interiors help to reduce the total weight of the vehicle and thus contribute to reducing the vehicle's energy consumption in operation. A lower part weight with identical wall thickness (made possible by adding a physical foaming agent) also means less resource expenditure in terms of plastic material. With simultaneous good surface quality, painting of the component, which would otherwise be necessary, can be dispensed with in many cases.

NPE 2015:
West Hall, booth W2743

Further Information:
Wittmann Battenfeld GmbH • www.wittmann-group.com

New TIM (Total Integrated Manufacturing) Cube Concept Simplifies assembling processes in injection moulding and reduces energy consumption



TIM Stack Mould

TIM Stack Molds with two assembly platens located outside the mould allow downstream assembly processes after injection moulding to be worked off directly at the mould. The automatic assembly is done by a handling system. Apart from assembly, potential functions include screw-connecting parts or leakage tests of assembled modules.
These additional assembly works do not extend machine cycle times, thus saving a lot of time and reducing energy consumption considerably as all functions are integrated in the mould and just one single injection moulding machine is required.

Another advantage of the TIM technology: Two or more different parts can be produced on one single mold.

Injection moulds of ZAHORANSKY are preferred in the packaging industry, oral care, medical and writing utensils. Especially in the construction of multi-component injection moulds ZAHORANSKY has long years of experience.

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Further Information:
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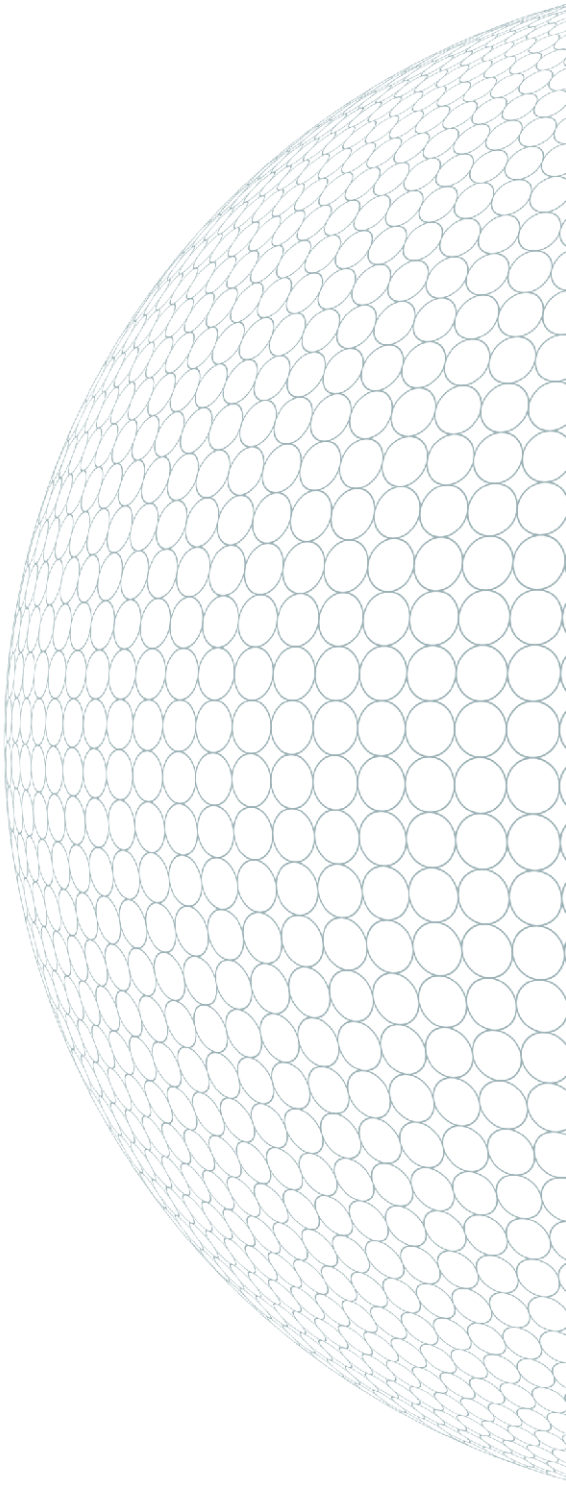

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