The new 4-roll slash calender will give you substantially enhanced efficiency and continuity in rubber sheet production owing to the following benefits:

– Slash design prevents the occurrence of undesired forces
– Extremely precise and rapid roll adjustments reduce material consumption
– Highest roll true running accuracy

An ultra-precise and uncompromisingly efficient solution for any application – the new 4-roll slash calender!
Dear customers, dear readers,

As a manufacturer of machines and systems in the business of plastic and rubber processing, innovation is a topic that is always on our agenda. We have to master a balancing act between two opposing development requirements of our customers: the desire for ever-higher performance, on the one hand, and lower costs, on the other. This task of optimizing affects the entire system, which is simultaneously meant to provide our customers with maximum availability, performance and quality of the systems we supply.

This is why we are increasingly becoming our customers’ main contact. With our comprehensive expertise when it comes to systems and materials, we can assume responsibility for the entire machine and its performance. As a comprehensive technology partner, KraussMaffei Berstorff brings not only its technical machine expertise to the table, but also its deep knowledge of materials, which comes from many years of experience. Our employees’ extensive competence is available to you every day, to develop customized solution concepts together and make adjustments tailored to your requirements and production conditions.

KraussMaffei Berstorff fulfills each and every requirement our customers may have with customized systems that have been comprehensively optimized at every stage: from material feed, to extrusion process, to fabrication. This opens up numerous new opportunities for you around the world, such as a growing market potential for pelletizing chlorinated PVC (C-PVC) in Asia and India, and a greater demand for our large pipe extrusion technology in the Near and Middle East as well as Africa and Southeast Asia, where multiple systems have been taken into operation over the course of the year.

To meet the requirements of the tire industry, we have increased our output of extrusion systems – primarily in the area of multiplex units. A team of experienced employees and external specialists has made potential improvements a reality in manufacturing and assembly processes based on lean principles and, while doing so, further increased the quality, on-time delivery, flexibility and output. This is what makes us a trendsetter in the industry. For us, offering outstanding services and satisfying our customers both go without saying.

I hope you enjoy reading this edition of AHEAD and would like to take this opportunity to turn your attention to the brief introduction of the new CEO of the KraussMaffei Group on page 5. I look forward to working closely with Dr. Steier!

Peter Roos
President of the Extrusion Technology Segment of the KraussMaffei Group
INSULATION MARKET  The efficient use of foamed plastics in construction.

MELITEK  The Danish family-owned company is considerably optimizing costs by implementing a modular system concept.

LEAN PROCESSES IN MULTIPLEX ASSEMBLY  Reduced costs and effort, more performance for the tire industry.
STRONG TOGETHER AND UNIQUE ALL OVER THE WORLD

The KraussMaffei Group is among the world’s leading suppliers of machinery and systems for producing and processing plastics and rubber.

- **1919**
  - Purchase of the present-day production center of KraussMaffei Berstorff in Hanover (an der Breiten Wiese).

- **2,000**
  - Machines of the MX series have been installed worldwide to date.

- **10**
  - Year anniversary celebration for the Viersen plant in 2015. Together with the location in Georgsmarienhütte, Viersen forms the business area of Automotive Component Systems – trimming and mold technology for PUR components in cars.

- **550 t**
  - Was the clamping force of the first, self-constructed injection molding machine by KraussMaffei in 1959.

- **1.593 billion closures**
  - That’s how many the ELION 4200 from Netstal can manufacture per year.
With Dr. Frank Stieler, the KraussMaffei Group has gained a highly accomplished executive with more than 20 years of international experience in renowned German industrial companies with a global presence, especially in mechanical and plant engineering.

Dear Customers,

the KraussMaffei Group is a remarkable company. It has three strong brands at its disposal with a portfolio of a wide range of premium-quality, high-performance products and services, of which technological expertise and the capacity to innovate form the basis. I have formed a deep respect for the wealth of knowledge, motivation and passion of our workforce all over the world, who are solely focused on you - our customers.

These strengths are an excellent foundation for the continued development of the company and its portfolio of products and services. As our valued customers, you are at the heart of all our activities. It is for this reason that I dedicated the first weeks to numerous personal meetings with our long-standing customers in Europe, China and the USA, and I will continue to do so in the future. This enables me to gain valuable insight into your expectations and how we can assist you in gaining and maintaining a competitive edge in your markets.

It is a great honor for me to take on this challenge. I look forward to continue working with our experienced and excellent management team and our proud and committed workforce.

It is my hope that I have been able to bring across my enthusiasm. I look forward to doing so in a personal conversation as well.

With best regards,

Dr. Frank Stieler

DR. FRANK STIELER
Since July 27, 2015 Chairman of the Executive Board (CEO) of the KraussMaffei Group.

NEW CEO OF THE KRAUSSMAFFEI GROUP

PERSONNEL NEWS
Approximately 40 percent of Germany’s energy consumption stems from the building sector. About half of this is caused by heating private households. Thus the potential savings here are enormous. KraussMaffei Berstorff is also contributing toward making the most of this potential.
Driven partly by legislation, partly by cost-conscious home builders or buyers, the construction industry has made energy efficiency one of its top priorities. Thermal insulation is the order of the day. Whether new or existing buildings – everywhere you can see that buildings are being covered with a second shell for thermal protection. Less visible, however, is the insulation of heating and hot water pipes to prevent heat losses.

Foamed plastic products make a substantial contribution to the big task of insulating. They are lighter than mineral wool, do not absorb any moisture, and insulate against heat and cold as well as against noise. They are pressure-resistant as well as UV-stable and weather-resistant. And they are easy to process at the construction site. Foamed sheets, films and pipes for the construction industry are now being produced around the world on more than 100 ZE/KE foam tandex systems from KraussMaffei Berstorff, directly in the desired shapes and dimensions, thus eliminating the need for post-processing.

Positive development of the market for insulating materials

In view of increasing energy costs and the requirements for environmental protection, the drive to insulate is not a purely German phenomenon. More or less all developed countries are affected by this. Thus, it is not surprising that strong long-term growth is being predicted for the insulation market. According to the World Insulation study by US-based market research institute Freedonia, the insulation market will grow to 45 billion euros worldwide between 2013 and 2016, with average annual growth rates of seven percent.

Development of the foamed plastics segment could be even more dynamic. According to the projections of market researchers, this expansion will come, in part, at the cost of other materials such as mineral wool and glass fibers. An important reason for this – in addition to the ease of processing at the construction site – is the good physical properties of extruded foam products.

Thus, for example, extruded polystyrene foam sheets (XPS) are substantially more pressure-resistant and significantly more resistant to moisture in the long term compared to expanded polystyrene sheets (EPS), which have been quantitatively used with significantly greater frequency until now. This can be traced back to the homogeneous, closed-cell structure that arises in the extrusion process. Physical foaming processes that are easy to manage and the use of blowing agents that are free of chlorofluorocarbons (and therefore more environmentally friendly) are further factors that explain the increased demand for extruded foams.

Insulation boards are particularly efficient at preventing heat loss in the house

Probably the best-known foam products used in the construction industry are XPS rigid foam sheets. They can be manufactured in the extrusion process with a density from 30 to 45 kg/m³. Typical dimensions are a width of around 600 to 1,200 mm and...
thickness between 30 and 160 mm. These sheets are used almost exclusively for thermal insulation. With a pressure resistance of 250 to 700 kPa, these rigid foam sheets can also be used for insulation between the base plate of a house and the ground.

Particularly in this application we can see the advantages of other special properties of extruded foam sheets. Their low water absorption of less than 0.1 percent and their low thermal conductivity, which is expressed in a lambda value of 0.030 to 0.035 W/mK, make them particularly suited for use as a substrate. Note that the lambda value indicates the quantity of heat that penetrates one cubic meter of a material when a temperature difference of 1 ° Celsius exists between the two sides. A lower value indicates better insulation properties of a material.

Compared to rigid foam sheets, foam films have thermal conductivity values that are slightly higher, but still very low, from 0.035 to 0.045 W/mK. They are manufactured with a base made of polystyrene as well as polyethylene. In the extrusion process they can be produced with widths between 1,000 and 2,500 mm, thicknesses between 1.5 and 16 mm and densities from 20 to 400 kg/m³. In the construction industry, films are frequently used for acoustic decoupling, for example, as impact sound insulation under parquet floors or as edge-insulating strips between wall and floor panels. Noise pollution can thus be reduced by 10 to 20 dB(A).

**Polyethylene pipe insulations for various applications**

Foamed polyethylene pipes have become the norm as sheathing for pipes. The typical properties of these foam products prove their value, regardless of whether they are used as thermal insulation for heating pipes or air-conditioner lines, or as sound insulation for discharge pipes. They are manufactured in the extrusion process with a density of 25 to 40 kg/m³ and for a pipe dimension area of 10 to 200 mm. Their lambda value lies between 0.035 and 0.040 W/mK.

These examples show that a good part of the insulating materials is required not only in cooler regions, but also in countries with a high need for air-conditioning. Increasingly strict legal regulations in many countries, the current revival of the construction industry in the USA and also the increasing urbanization in developing and emerging countries, particularly in the Asia-Pacific region, are the driving forces of the general growth in this market.

**Two-stage extrusion concept has become prevalent**

As the demand for materials grows, so does the need for machines to manufacture them. KraussMaffei Berstorff benefits from this development, especially since the more than 100 ZE/KE foam tandem systems already installed worldwide have brought the company high renown in the relevant industries. The two-stage concept for manufacturing foam has done an excellent job of proving itself. It consists of two extruders, which are connected by a melt line.

The primary extruder, a twin-screw extruder of the ZE series, can be adapted to any task with its flexible screw configuration and housing configuration. It takes care of the plasticizing and homogenization of the plastic/foam mixture. For this purpose, the base material and required additives are first fed into the extruder’s feed zone via a gravimetric metering unit, then melted and mixed. Then the physical blowing agent – usually CO₂ or alkanes such as isobutane – is injected at about the middle of the extruder via a liquid metering pump.

After this has been completely mixed into the polymer, the melt reaches the secondary extruder. This is a single-screw extruder of the KE series, which has significantly larger dimensions compared to the twin-screw extruder. Thus, for example, in a laboratory machine for an output of 100 kg per hour, a ZE 40 is connected to a KE 90. In what is the largest foam tandem system built to date, with a capacity of up to 2,000 kg per hour, a ZE 130 is combined with a KE 400.

In addition to continuous melt homogenization, the single-screw extruder assumes the
With annual growth rates of 7% the market for insulating materials should increase to 45 billion euros globally between 2013 and 2016.

The important task of melt cooling. To accomplish this, the barrel zones are set to a low temperature level, depending on the type of raw material used. Thus, when the melt mixture exits the mold, it can foam optimally and remain stable without collapsing.

**Optimum extrusion heads manufactured in-house**

The core component for manufacturing the three different foam products of sheet, film and pipe is the special extrusion head. It causes the gas-flushed melt to exit and foam in a defined manner, so that it attains its final form later in the calibration. While wide extrusion dies are used for sheets, film blowing heads, which produce a tubular extrudate, are used for manufacturing film. A slitting device then turns the hose into a windable, flat film.

Since it is more cost-effective to extrude multiple foam pipes in one step, dual or quadruple heads are usually used for pipe production.

All extrusion heads are equipped with an oil temperature control unit in multiple zones, which guarantees indispensable, exact temperature control for foam products. Designing an extrusion head for an individual application requires the highest degree of expertise. KraussMaffei Berstorff manufactures not only the extrusion systems, but also these heads – using its notable store of experience from more than 100 installed lines.

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COST-EFFECTIVE PRODUCTION OF PREMIUM-QUALITY RUBBER HOSES

Not all rubber hoses are equal. As with many technical products, here too, the quality makes the (price) difference. Manufacturing premium-quality hoses at the lowest possible cost is a question of competitiveness. KraussMaffei Berstorff showed how it’s done at the German Rubber Conference (Deutsche Kautschuk-Tagung, DKT) 2015.

H igher productivity, improved product quality and lower consumption of raw materials – a new straight-through extrusion head for rubber hoses promises all of that. KraussMaffei Berstorff presented this new product at the German Rubber Conference DKT 2015 as part of the International Rubber Conference IRC at the end of June/beginning of July in Nuremberg. The extruder head is equipped with a hydraulic tool-centering device and an X-ray measuring device.

The new straight-through extrusion head has been designed specifically to ensure minimum set-up times and high productivity with uniformly high hose quality. “The system is excellently suited for manufacturers who want to produce hoses with a uniform wall thickness reliably over a long period, cost-effectively and with the highest quality,” explains Frank Reineke, responsible for the Processing Department and Development of Rubber Technology at KraussMaffei Berstorff.

“This applies also to owner/operators of older hose extrusion systems. There is no problem retrofitting these with the new hydraulic tool centering system,” assures Reineke. Since the DKT/IRC 2015, the system has been available to all interested users for hose diameters of 3 to 100 mm.

And this is how the centering device works: In the front head area, the hose wall thickness is adjusted by an axially moveable die as in previous solutions. The innovative die holder is radially centered by a hydraulic system, which substantially reduces the need for adjustments during start-up and production.

X-ray measuring device controls the hydraulic tool centering system
An X-ray measurement system offers an additional improvement. By implementing it, the user can replace the process of manually re-adjusting the head with an automated process. When used in combination with the X-ray measuring device, the hydraulic system adjusts the wall thickness with extremely high precision to one-hundredth of a millimeter with the help of digital controllers.

Noticeable material savings
The system provides the hose manufacturer with substantial advantages in quality control as well as operation. Thanks to the continuous production monitoring, the manufacturer can substantially reduce the time required to adjust the system and to significantly reduce wall thickness tolerances. Owing to substantial material cost savings per year at constantly high product quality, this new line configuration pays off within a minimum of time.
Often it is the small, inconspicuous steps that leave some leeway for optimization. Once again, the engineers at KraussMaffei Berstorff have embraced one of these processes: preloading for screws in twin-screw extruders. A hydraulic preloading system makes the work easier and ensures reproducible screw installation and preloading.

TEXT: JOACHIM WEBER, ANDREAS WESELER  PHOTOS: KRAUSSMAFFEI BERSTORFF

HYDRAULIC SYSTEM REPLACES THE TORQUE WRENCH

NO LONGER GUESSWORK: THE SCREW PRELOADING SYSTEM

The process problems during compounding are becoming ever-more complex, with higher filling degrees, higher throughputs and higher efficiency. That’s why more and more powerful drives are being used in twin-screw extruders to enable ever-higher torques to be transferred to the screws.

Ensuring that the torque is transferred safely requires not only powerful drives, special, heavy-duty screw shaft materials and an optimum gear geometry on the screw shaft, but also a tension of the screws on the shaft that is safe and has the greatest possible precision. Until now the common practice has been to preload the segmented screws with a torque wrench. However, this method is subject to certain tolerances and, in the case of reconfiguring the extruder, involves a large amount of time.

Eliminates the disadvantages of manual preloading
This new system subjects the screw shafts only to a defined tensile stress without exerting any torsion load. It is easy to operate. The machine operator simply selects the appropriate pressure and clamps the extracted screw in the preloading system. At the simple push of a button, the combination composed of screw shaft, screw element and screw tip is safely preloaded in the elastic range and can be easily inserted into the processing section in this state.

A good bit of preliminary work went into this. The materials, resulting expansion coefficients and geometric lengths and structural sizes were factored in the calculation on a cold screw when defining the required hydraulic preload pressures.

Fewer cleaning tasks
In addition to the immediate time savings, the hydraulic pretension provides yet another positive side effect with clear cost benefits that is not to be underestimated. The defined preloading forces prevent the melt from penetrating between the screw element and the shaft and thus help to avoid time-consuming and expensive dismantling and cleaning operations.

Thanks to a well-conceived series design, we can cover all extruder sizes of the ZE BluePower, ZE-UTX and UltraTorque (UT) series with three structural sizes of the preloading system.

HYDRAULIC SCREW PRELOADING SYSTEM
Safely preloads the system composed of screw shaft, screw element and screw tip in the elastic range.

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Cost-effective and powerful
Pelletizing systems for PVC and C-PVC

Engineering Value
KraussMaffei Berstorff provides you with complete solutions for pelletizing rigid and flexible PVC. We support your production process with our longtime expertise in process technology – all the way from selecting the raw materials and formulations to the finished product with outstanding quality.

KraussMaffei Berstorff
All signs are pointing to expansion for the Danish company Melitek A/S. Last year, this specialist in elastomer and polymer compounds for applications involving medical technology put another production hall into operation. At the heart of it is a ModulPlus compounding system from KraussMaffei Berstorff.
in the north part of the Danish island Falster, about a 117-km (73-mile) drive south of Copenhagen, is the parish community of Nørre Alslev. This is the location of the headquarters of a company that produces pre-colored compounds made of PVC-free polymers for the most stringent requirements: Melitek A/S, a family-owned company with just under two-dozen employees and one line of highly efficient compounding systems.

Special compounds for health care
The polymer compounds based on polyethylene, polypropylene, polystyrene, acrylonitrile-butadiene styrene-copolymer or thermoplastic elastomers (TPE, also based on olefin: TPO) are designed for medical applications. They are customized for the respective need, for example, with respect to their functional properties or the desired colors. The customers use these to manufacture, for example, films for bags, hoses and various injection-molded products.

“We are proud to supply some of the world’s largest manufacturers of pharmaceutical packaging and disposable medical products with materials for their main products,” says Kim Laursen, Melitek’s Managing Director. The fact that these clients hardly allow any tolerances in the quality of the products also impacts the requirements on the technical equipment of the manufacturer. Thus Laursen had two important reasons for purchasing the ModulPlus system from KraussMaffei Berstorff: “It was important to us, on the one hand, to have a short commissioning time, so that we could resume production right after the new hall was completed. On the other hand, by no means did we want to make any compromises with regard to the compound quality.”

Successful system concept
The modular systems consist of individual units that are constructed and tested in Hanover and come pre-wired and piped. Therefore, the modules need only to be set up at the customer’s facility, connected via the already integrated interfaces and put into operation. After more than 100 such systems had already been sold, the newer ModulPlus version introduced in 2013 has also become a complete success.

ModulPlus concept with many advantages
Unlike the previous version, the extruder in the new system is no longer integrated into a module, which brings major advantages. For one thing, this makes it freely accessible at ground level; moreover, construction of its steel substructure can already begin on-site even while the modules for metering, materials handling, pelletizing and control are being built in Hanover. “This way, approximately 20 percent of the steel construction costs and two months of production time can be saved,” says Thorsten Schroer, acting Head of Systems Engineering at KraussMaffei Berstorff, to summarize the customer benefit. “With a ModulPlus system it now takes only about three to five weeks from delivery to production of the first pellets.”

Melitek’s Managing Director Laursen also expressed his enthusiasm by saying: “For us, this time saving was perfect, especially since the machine supplier has adhered to all of the promised deadlines.” ModulPlus systems work with twin-screw extruders of the ZE series, which is known for its gentle and efficient compounding. A ZE 75 A UTXi was selected for the Melitek system.

Optimum soundproofing solution
Yet another special aspect was added in Nørre Alslev: “Protecting our employees by ensuring low levels of noise pollution is something very important to us,” Laursen emphasizes. Therefore, Melitek and KraussMaffei Berstorff have implemented a joint noise-control project. The walls of the newly built hall are equipped with sound-absorbing elements. And to reduce the sound at the source, all of the ModulPlus system’s pipelines were soundproofed, the blower was equipped with soundproofing and the machine drive was also insulated. The integrated underwater granulation system by Gala GmbH from Xanten operates with a low-noise version of a dryer. The result: The noise pollution at the operator workstation has been significantly reduced to a level of less than 85 dB (A).

Managing Director Laursen sums it up: “The modular system concept and the turnkey delivery were the right choice for our project. During the entire time the project was carried out, we were able to concentrate on our business, while KraussMaffei Berstorff perfectly tailored the system to our needs and commissioned it within a short time.” A follow-up order has already been placed: Melitek ordered a laboratory machine with a ZE 30 UTXi twin-screw extruder, which will permanently replace an old system.
COST-EFFECTIVE PROCESSES AND GUARANTEES HIGH COMPOUND QUALITY

KRAUSSMAFFEI BERSTORFF SUPPLIES EUROPE’S LARGEST PLANT FOR REMANUFACTURED COMPOUNDS

For Europe’s largest polyolefin processing plant – which is currently under construction at Chemiepark Chemelot, in Sittard-Geleen in the Netherlands, and has a capacity of 100,000 tonnes per year – KraussMaffei Berstorff in Hanover will supply two identical extrusion lines by the end of the year. The client is the start-up company QCP [Quality Circular Polymers], which has set itself the goal of becoming the largest provider of premium-quality recompounds for high-end applications. To this end, the mechanical engineering company is implementing a one-of-a-kind cascade process that turns post-consumer waste materials directly into premium-quality compounds.

TEXT: ANDREAS WESELER  PHOTOS: QCP, ISTOCK
required additives and fillers, etc. are worked in and then the finished recompounds are manufactured by a pelletizing system.

A key feature of the arrangement is the ultra-glide design of the first extruder. It allows for automatically extending the screws and the drive block to the rear for the purpose of cleaning or reconfiguring. Consequently, there is no need to work at removing the downstream components during the cascade process of the melt line and second extruder, which makes for a fast conversion, and thus adds considerably to the cost-efficiency of the entire process.

By the end of this year, the two identical complete lines are to be installed in the cascade design, and the first production unit of Europe’s largest plant for processing polyolefins will begin operation.

→ MORE INFORMATION AT:
www.qcpolymers.com

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Capacity
100 tonnes/year
The tire industry’s demand for extrusion lines is on the rise. As a response, KraussMaffei Berstorff is expanding the installation capacity for complete Multiplex systems. But instead of doing it the conventional way of multiplying existing structures, KraussMaffei Berstorff does it by means of a comprehensive reconfiguration.

T he tire industry needs new machines, and would like to put them into operation as quickly as possible. KraussMaffei Berstorff has responded to its customers’ growing demands for delivery capability and delivery periods. To increase the production capacity and shorten the throughput times, the company has completely restructured the way Multiplex extrusion systems are installed.

Such systems are used in the tire industry to produce various tire components – such as multi-layered running strips for cars – from multiple varying kinds of rubber. In these systems, up to six extruders can be connected to a single extrusion head. Thanks to the modular design, the systems can be relatively easily configured according to the desired profile. Multiplex units are high-performance systems. They achieve throughputs of up to 10,000 kilograms of rubber per hour, which corresponds to about 30,000 running strips for cars per day.

Restructuring reduces the throughput time
To master the growing demand for these units, KraussMaffei Berstorff had to expand its production capacity. The company answered the question of “How?” with a landmark decision.

Assembly bottleneck
The assembly bottleneck was in need of a complete overhaul. To achieve this, a team...
Throughputs of up to 10,000 kilograms of rubber per hour

of experienced employees and external specialists identified potential for improvement in the manufacturing and assembly processes in workshops and quickly took action.

"The focus was on restructuring the production process based on the lean principles with the clear goal of further increasing quality, on-time delivery, flexibility and output," explains Bastian Sacher, Head of Production at KraussMaffei Berstorff. "The improved processes enabled us to expand our capacities. The modifications make it possible to assemble a larger number of machines and systems simultaneously."

Until now, Multiplex units and their modules were assembled individually for a specific order. Through consistent segmentation of the assembly process according to modules, we have now succeeded in specializing our teams in individual subprocesses in both the pre-assembly and final assembly stages. This change has had noticeable positive effects on quantity. Additionally, the in-house logistics, assembly control and ergonomics were put to the test and improved over the course of the realignment. These measures also contribute to reducing throughput times, improving quality and significantly increasing assembly capacity as a whole.

Revamped infrastructure
The optimization of the processes was associated with substantial investments: in hydraulic units and heat balancing units for assembly purposes, transportation and assembly devices as well as in the supply of tool kits for the assembly employees. Moreover, the complete infrastructure, ranging from the floor of the hall, to the shelving, to the crane, was carefully examined and revamped. The clear marking of paths and the visualization system at the individual workstations determine the flow of the modules and products through the hall. As a result, the existing assembly areas can be used more efficiently than before. At the same time, the transparency of the assembly sequences increases.

High dedication of the employees
Another important aspect of the reconfiguration: "We have placed special emphasis on getting the employees involved early on. They took an active part during the planning phase, and of course particularly during implementation. The result is that our employees identify with the changes and feel an even greater responsibility for processes and quality," says Sacher. "I am simply ecstatic about the high dedication of the team and about what we have already accomplished in such a short time. All employees have helped with their high personal dedication to minimize friction during the reconfiguration phase and to prevent negative effects on customer orders that were in progress."

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PELLETIZING SYSTEMS FOR THE WIN

RIGID PVC ON THE RISE

KraussMaffei Berstorff sees a growing market potential for pelletizing chlorinated PVC (C-PVC) in Asia and India.

TEXT: JOACHIM WEBER, ANNEMARIE PABST PHOTO: KRAUSSMAFFEI BERSTORFF

This kind of rigid PVC is used predominantly in the construction industry, particularly in the form of fittings that serve as pipe connections in the area of hot and cold water. “We enjoy great competitive advantages as a system provider of customized complete systems for pelletizing rigid PVC, because we are able to offer our customers comprehensive process-engineering expertise for processing a wide variety of formulations,” Andreas Kessler, General Sales Manager at the Munich location of KraussMaffei Berstorff, says excitedly.

Developments for processing C-PVC formulations
Just recently, KraussMaffei Berstorff further developed and optimized its machine technology for processing C-PVC formulations. “Our twin-screw extruders offer very high outputs and excellent product quality because their processing units have been matched according to specific product requirements,” explains Kessler. The processing company also benefits from the advantages of a cost-effective air-cooled pelletizer that is easy to operate, fast and easy to clean, and prevents pellets from sticking together.

There has also been a welcome rise in the demand for systems for processing polyethylenes with color masterbatch.

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C-PVC PELLETIZING
KraussMaffei Berstorff
pelletizing head.
This year, the Near and Middle East as well as Africa and South-east Asia have shown particular interest in large pipe extrusion technology from KraussMaffei Berstorff. Multiple systems were commissioned there over the course of the year. They are used to produce large polyolefin pipes for pressurized-water applications. These pipes are increasingly being used instead of concrete or metal pipes thanks to their outstanding product properties such as low weight and ease of installation.

“Particularly in large pipe technology, perfectly tailored system components are indispensable in achieving optimum pipe quality,” explains Andreas Kessler, General Sales Manager at the Munich location of KraussMaffei Berstorff. Three major factors influence the purchasing decision of the processor: high outputs, narrow wall thickness tolerances and precise melting temperature control for the best possible calibration control. This ensures that stringent requirements pertaining to wall thickness and ovality are observed,” continues Kessler.

The systems of KraussMaffei Berstorff meet these advanced requirements. These systems combine long-established single-screw technology, a spiral distributor pipe head concept and calibration technology that is designed with these requirements in mind. “In addition, our large-diameter pipelines can also be equipped with efficient internal pipe cooling (IPC), which cools the interior as well as the exterior of the pipe and results in an increase in output of up to 60 percent,” emphasizes Kessler.

High-quality pipes are indispensable because only error-free, flush welding can achieve optimum pressure stability and durability of the installed large pipes and prevent time-consuming pipe rotations during the installation stage.

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After a ZE 52 Basic with a side feeder was installed last year, Sunway is now operating one ZE 25 UTxi laboratory extruder and three ZE 52 Basic twin-screw extruders. In the spring of this year, the company ordered two more ZE 52 Basic twin-screw extruders.

"With the ZE Basic extruders, we are increasing our product quality and process stability for compounding standard plastics. This helps us satisfy the growing demands of our customers," reports Ren Jun, General Manager of Suzhou Sunway. Michael Hofhus, Sales and Service Manager at KraussMaffei Berstorff in China, describes the trend in more detail: "The market trend is forcing many Chinese compounding businesses to invest in sophisticated technologies to keep pace with the competition and to be able to address current requirements with regard to delivery periods, price and quality."

The Chinese compounding firm Suzhou Sunway, located in the industrial city of Suzhou with 1.3 million inhabitants about 100 kilometers (62 miles) west of Shanghai, has a considerable size with its 220 employees and a converted sales volume of approximately 130 million euros. This longtime customer is increasingly relying on extruders of the ZE Basic series to increase its productivity, flexibility and innovative strength.
FOCUS ON CUSTOMER NEEDS

A WIN-WIN FOR ALL

Netstal and DaeSang are successfully collaborating in South Korea.

When two strong companies join forces, the result is a win-win situation – and customers benefit from a performance capability that neither of the companies could have provided on its own. In South Korea, Netstal and DaeSang T&C are engaged in a reliable partnership on equal terms. As a result, the customers get the best of European technology and Korean relationship management.

INCREASING COMPETITIVENESS

PRODUCTIVITY PLUS: THE FORMULA FOR SUCCESS

KraussMaffei supplies a tailor-made system solution for every application purpose, thus increasing productivity in your production.

KraussMaffei

When it comes to asserting oneself on the international marketplace, maximum flexibility and efficiency are the buzzwords of modern plastics processing. Depending on whether it involves the production of technical parts, medical products, packaging or automotive components, manufacturers have different requirements. The key to success is Productivity PLUS.

TRADE SHOW CALENDAR FROM OCTOBER 2015–MARCH 2016

<table>
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<th>Event</th>
<th>Date</th>
<th>Exhibitor</th>
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<tr>
<td>Fakuma, Friedrichshafen, Germany</td>
<td>13.10.2015–17.10.2015</td>
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<td>Composite Engineering Show NEC, Birmingham, England</td>
<td>04.11.2015–05.11.2015</td>
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<td>Expo Plásticos, Guadalajara, Mexico</td>
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<td>RubberTech, Shanghai, China</td>
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<td>Putech Eurasia, Istanbul, Turkey</td>
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<td>Plast Eurasia, Istanbul, Turkey</td>
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<td>Interplastica, Moscow, Russia</td>
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<td>KraussMaffei</td>
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IMPRINT

Publisher:
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Photo credits:
KraussMaffei, KraussMaffei Berstorff,
iStockphotos, QCP, Shutterstock

Concept and design:
Kirchhoff Consult AG, Hamburg
www.kirchhoff.de

Printing:
om2 Print GmbH, Munich

The customer magazine is published twice a year in German and English. The magazine may only be reprinted with the written permission of the publisher.
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