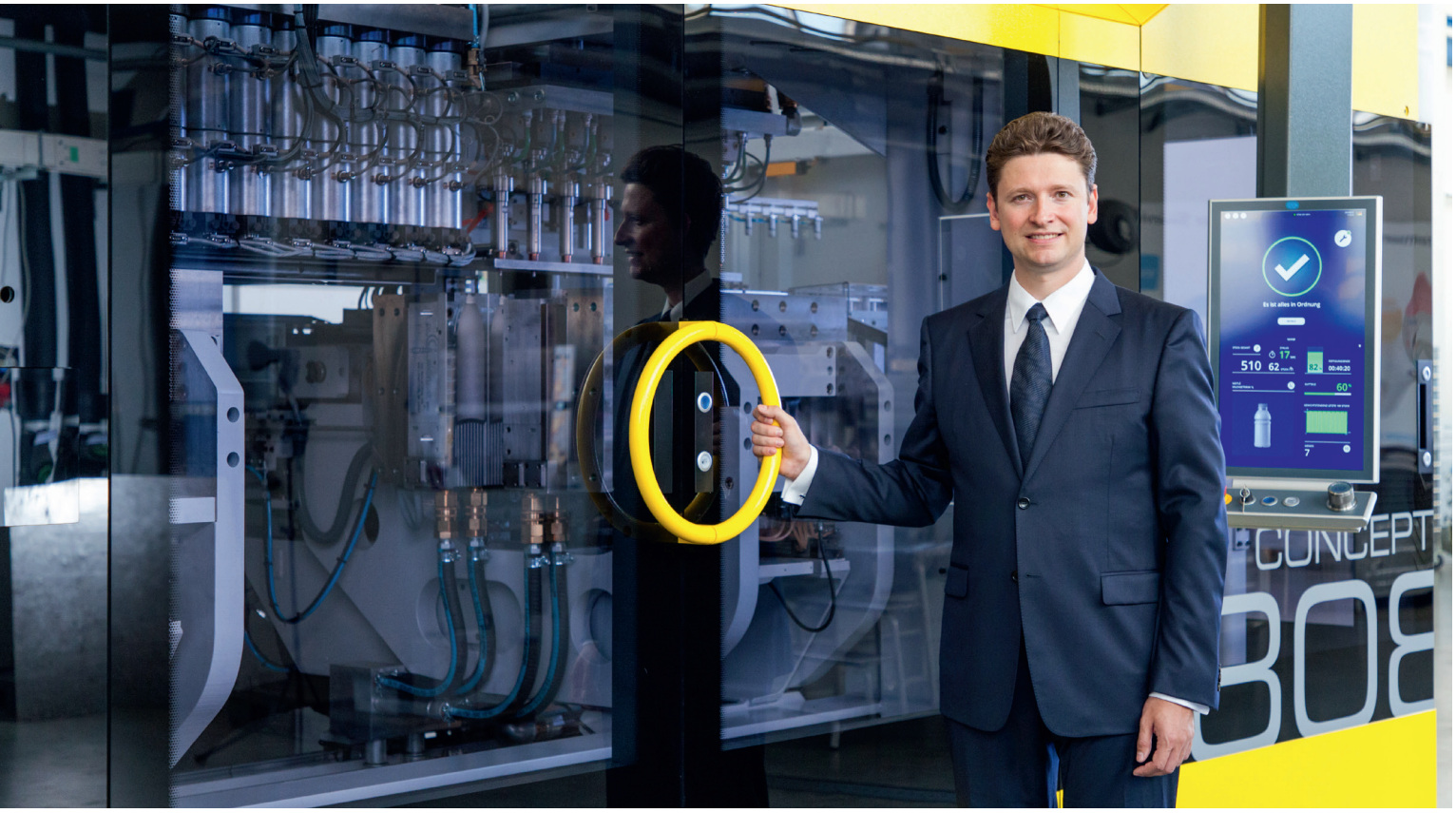
October 2019

bekum*news*

Latest Information for Customers, Partners and Employees



Focus on the Future

Concept 808 – the Extrusion Blow Moulding Machine of the Future

TECHNOLOGY – CONTROL

New Bekum Control 8.0 Machine Control System

TECHNOLOGY – EXTRUDER

New Extruder Generation HiPEx 36D

PACKAGING MACHINES

EBLOW 807D – 500 kN The Largest Blow Moulding Machine for Packaging

BEKUM

Dear Customers,
Partners and Employees,

60 years ago, my father founded Bekum in Berlin. Bekum remains 100% under the management and ownership of this same family to this very day and, therefore, demonstrates a level of stability that is unrivalled in our industry. Together with our plants in Austria (50 years) and the USA (40 years), which are also celebrating milestone anniversaries, the Bekum Group possesses more than 150 years of experience, which forms the cornerstone of both your and our success in extrusion blow moulding.

Nevertheless, I do not wish to spend too much time reminiscing; the increasingly fierce competition on the market demands that we shift our focus to the future. Following the successful change of generation at the last K Trade Fair held in 2016, it gives me great pleasure to present to you, during this K Trade Fair year, a number of the projects on which I have signed off personally and that we have been working on since K 2016. Not only have we refreshed our corporate identity and our website to reflect Bekum's youthful profile, I am also especially proud that we will be able to show you more technical innovations than ever before.

The Concept 808, which we will be presenting to you at K 2019 in Düsseldorf, is a real highlight. In this case, it is not so much a special model or a new machine size that we will be presenting, but rather a concept machine with a range of innovations and new technologies with which we hope to give you an overview of our entire future machine range.

The most remarkable of these is, without a doubt, our new, more functional machine design, which, thanks to its accessibility, allows magnetic moulds to be changed within 15 mins. per machine side. However, the true innovations are within. We will, therefore, be presenting a new generation of our Bekum Control 8.0 machine control system, which offers an intuitive user interface, improved Industry 4.0 capabilities, smart data processing, service support and more.

Also particularly worthy of note is our new HiPEx 36D generation of extruders, which offers improved melt quality, IE5 motors and impressive energy savings. All this is tied together by our Bekum 3-layer spiral mandrel extrusion head, which allows for precise layer distributions and the increased use of PCR plastics in support of the circular economy.

You can learn more about these and many other innovations in this issue of the Bekum newsletter, such as our largest packaging machine, the EBLOW 807D; electric drives; and new developments and projects in the fields of large-part blow moulding, pharma and extrusion blow moulded PET.

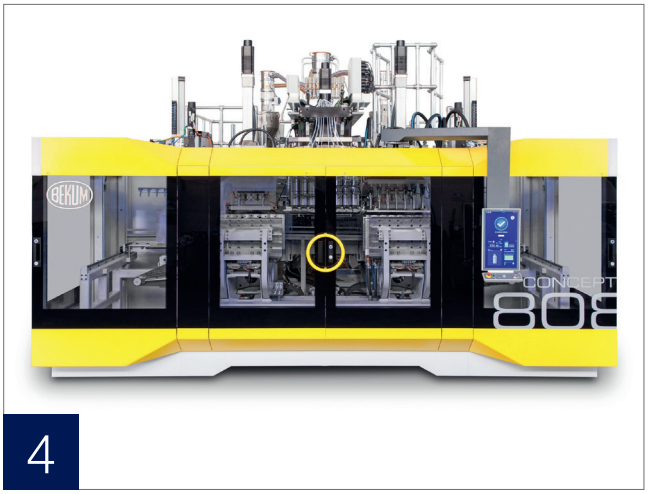
Finally, I would like to take this opportunity to highlight one particular success: Thanks to the outstanding team at Bekum America, the company has achieved such continual and strong growth in previous years that we have decided to expand our machine assembly area, enabling us to meet the ever-growing demands of our customers, reduce lead times and introduce more efficient assembly processes.

Were it not for you, our customers, and the trust you have placed in us time and again, we would never have achieved such success over the last few decades. I would like to extend my sincerest gratitude for this. We are growing to meet your requirements and are grateful for the many excellent partnerships we have with our customers, with whom we develop new solutions. I would also like to thank our employees at the Berlin, Traismauer and Williamston plants, who work hard every day to support Bekum and our customers. Thank you.

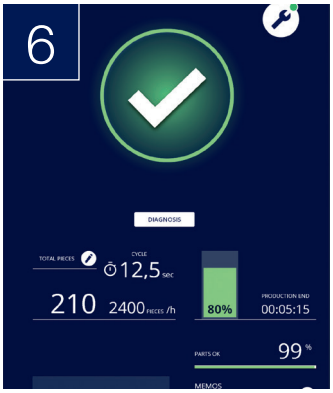
With warm regards,

M. Mehnert

Ihr Michael Mehnert
Managing Director

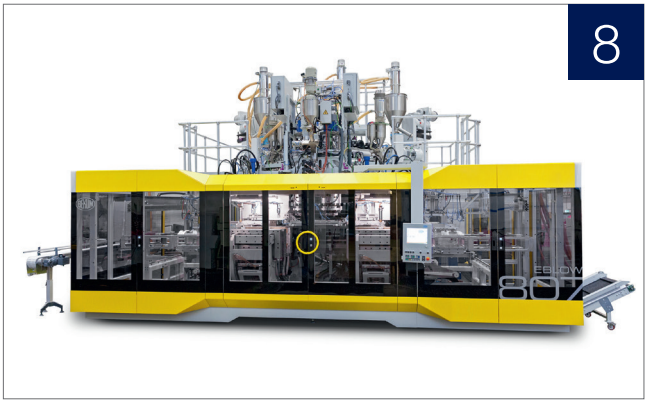


4



6

9



8

11

CONTENT

K-SPECIAL 4 – 5

Focus on the Future – Concept 808

TECHNOLOGY 6 – 7

New Bekum Control 8.0 Machine Control System

Magnetic Quick-change System for Moulds and Blow Pins

New Extruder Generation HiPEx 36D

PACKAGING MACHINES 8 – 9

EBLOW 807D – 500 kN
The Largest Blow Moulding Machine for Packaging

Circular Economy with Tri-extrusion Technology

The Interview with Mr. Stauch,
Röchling Medical Neuhaus

INDUSTRIAL MACHINES 10 – 11

3D Blow Moulding –
A Specialized Activity with Very Specific Requirements

Flexible large blow moulding system
for canisters and wide-neck drums

Bekum's got a handle on it – PET Handleware

BEKUM AMERICA 11 – 12

Several 20 Liter Canister Machines
Being Installed In North America

The Bekum Large Size Blow Moulding Machine Program

INDUSTRY 4.0 13

New Remote Maintenance Concept

DIGITAL COMUNICATION 13 – 14

Bekum – Shift to the 2nd Generation!

Blow Moulding Conference 2019

TECHNOLOGY AND SERVICE 15

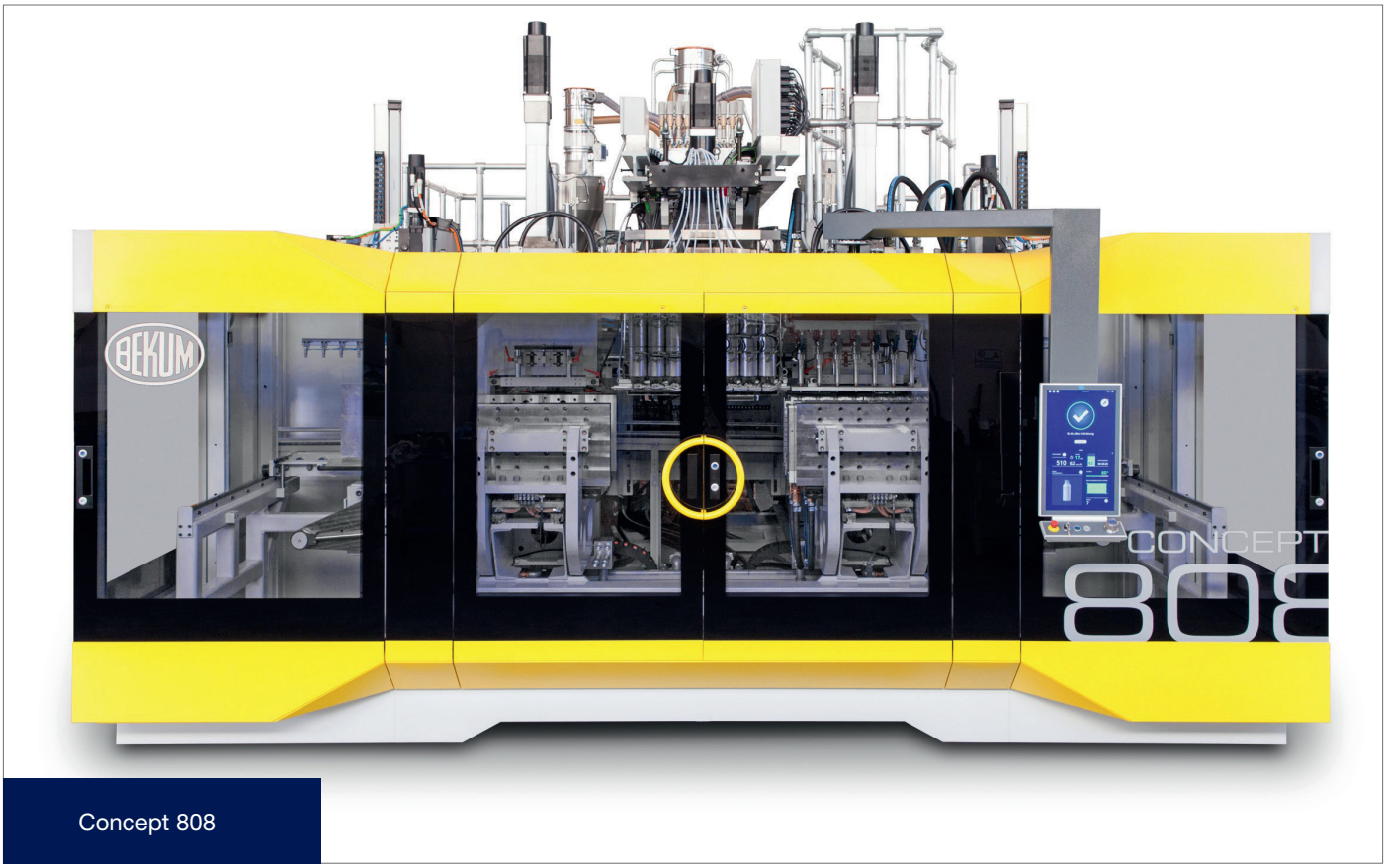
Highly-efficient IE5 extruder motors

Mechanical In-house and Job-order Production

Small investment – Big Impact

Focus on the Future – Concept 808

With the “Concept 808” concept machine, Bekum is heralding the future of the extrusion blow moulding machine.



Concept 808

Anyone wanting to learn more about industry trends, innovation and hot topics in the field of extrusion blow moulding at K 2019 will not want to miss the opportunity to visit the Bekum stand.

The concept machine 808 demonstrates a range of features that will be seen on future blow moulding machines. The machines set themselves apart with their reduced energy consumption, small footprint, excellent access possibilities and short set-up times.

Design

The new, aesthetically pleasing design is characterised by its contemporary colour and shape and its increased functionality and improved ergonomics. Cleverly bevelled surfaces combined with large, slightly tinted viewing windows highlight the strong innovative capability of Bekum blow moulding machines. The inclined surfaces convey a sense of dynamism. When it comes to detail, the minimalist design serves to highlight the excellent quality of our machines. The extensive yellow colour scheme clearly indicates that this is a Bekum blow moulding machine and ensures a high level of brand recognition for Bekum.
Practical extras include generously proportioned safety doors and integrated colour-changing LED signal lamps, which display the operating status.

Magnetic Quick-change System for Moulds

One of the most impressive new features is the optional magnetic quick-change system for moulds. This allows moulds to be changed for each clamping unit within 15 minutes, without any tools and without the need for special mould carriages. The quick-change system for blowpins, which is just as simple and also operated by means of magnetic clamping technology, is particularly impressive. Moulds and blowpins are still exchanged from the front of the machine. (more on page 6)

Visit Bekum at K 2019
to learn more about
the Concept 808.

16. – 23.10.
Hall 14 / C03

2019

HiPEx – a More Powerful Extruder

The new “HiPEx” generation of extruders for the future packaging machine series are characterised by their exceptional process stability, their high maximum throughput capacities and their excellent melt homogeneity. When designing extruders, Bekum places particular emphasis on a high degree of energy efficiency. (more on page 7)

Bekum Extrusion Heads

The Bekum extrusion heads are constantly undergoing further development. In single or multilayer technology, they guarantee precise melt flow, short colour change times and uniform wall thicknesses across the entire circumference of the container for all plastics that can be extrusion blow moulded. Regrind (PCR) and fillers (combinations with chalk) can be processed with excellent results.

Bekum Control 8.0

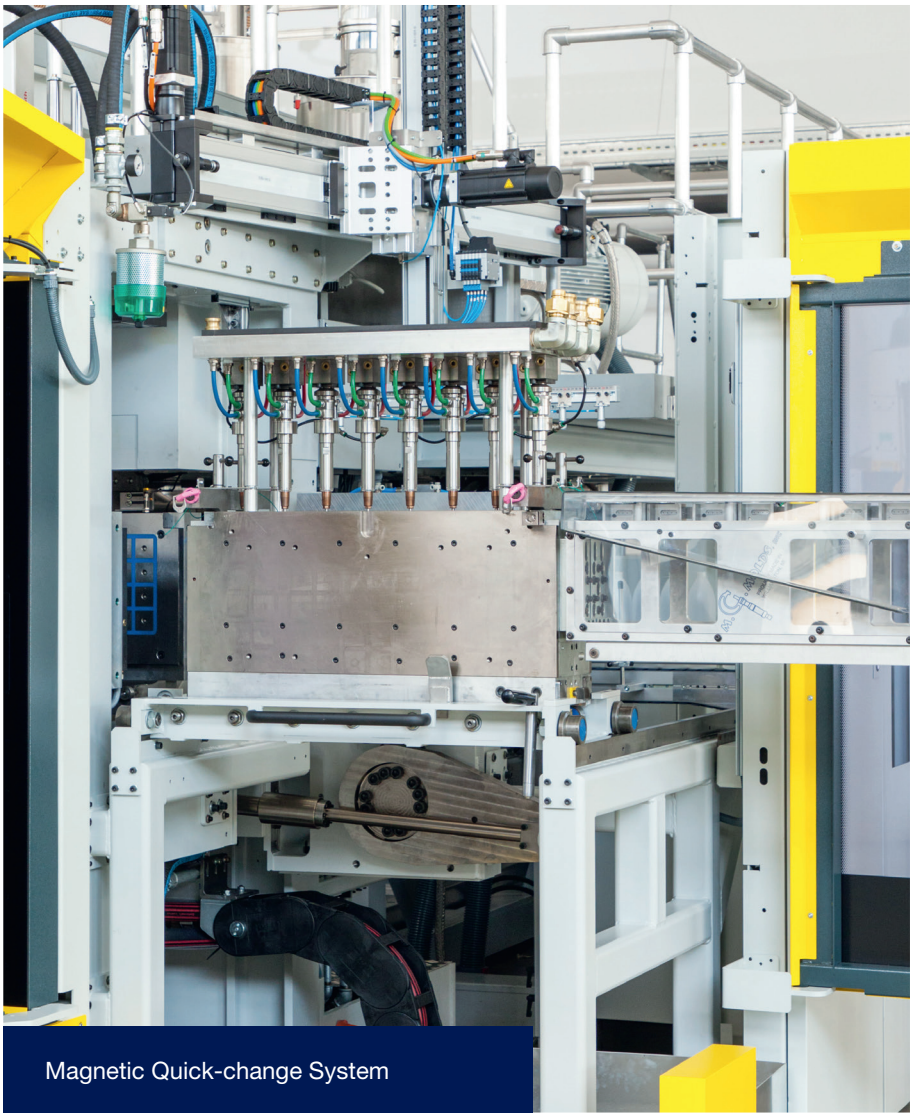
A generously sized control unit with portrait alignment complements the state-of-the-art design of the future machine series. One feature of the new, intuitive user interface is the ability to view throughput and energy consumption on the screen. It is just as intuitive as the display of power, water and air consumption, as well as the pressures of all of the feed media.

The online services that elsewhere have been highlighted during the course of Industry 4.0 have already been available and in use for a number of years at Bekum. This means that, once they have been granted access by the owner of the machine, Bekum service technicians are able to log into the system at any time in order to perform functional testing and software updates. (more on page 6)

Exclusive Clamping Unit

Bekum’s patented C-base frame still forms the centrepiece of all of the machines in the new range and it continues to impress with its unmatched parallelism of the clamping plates. The “Concept 808” demonstrates a possible variant for the design of the clamping drive. The most important requirements for the clamping drive is the ability to establish its clamping force quickly in order to complete the clamping stroke, which is crucial for product quality. The electric clamping drive that has been integrated into the “Concept 808” fulfils the force generation function particularly well. Plastics that are demanding for process technology, such as PP, PC and PET, could be processed in numerous applications with excellent punching results at high quantities.

In future machines belonging to the packaging machine series, the movements of carriages, punching units and extruders will continue to be performed using electromechanical drives. It goes without saying that automatic central lubrication and a cutting device that is tailored to the plastic that is to be processed are also included.



Magnetic Quick-change System

Our Contribution to the Circular Economy

Bekum has been committed to the circular economy for many years and, with its three-layer heads, offers a solution for the cost-effective recycling of correctly sorted PE or PP plastic waste. Thanks to Bekum’s tri-extrusion technology, recycled materials (PCR) can be embedded between layers of virgin plastic, thereby enabling resource-efficient production. The use of PCR in the middle layer can also bring about a reduction in the cost of manufacturing containers. Three-layer blow moulding applications are the latest trend in the packaging industry as companies strive to reduce their overall plastic consumption and to protect our planet’s resources. (more on page 9) ■

New Bekum Control 8.0 Machine Control System

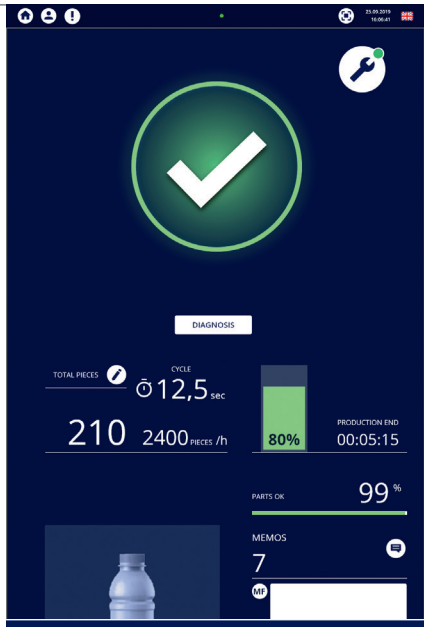
Premiere of the new control system „Bekum Control 8.0“ in the exhibition concept machine Concept 808

Bekum is constantly striving to optimize the user-friendliness of its machines. For that reason, the existing machine control system has been analyzed and further developed by a team of HMI experts and application technicians.

The new operator panel of the new Bekum Control 8.0 is a high-quality 24" screen with full-HD resolution in portrait format. When making this selection, particular emphasis was placed on robustness and the reduction of glare. In addition, the number of push buttons and switches was significantly reduced in order to simplify operation.

The larger portrait format has enabled us to optimize menu navigation and the display of new functions. The new status page (dashboard) shows the user, at a glance, whether a fault is present, whether maintenance needs to be performed, and how productive the machine is. The operator or shift supervisor can also see from a distance whether any action needs to be taken. Where multiple machines are being operated simultaneously by a single person, this can reduce the reaction time in the event that a problem arises, thereby reducing potential production downtime. Although this is a new feature, operators who are accustomed to working with older Bekum machines will be able to find their way around the new machines in no time, since the operating logic and the content of the pages has not been changed.

In addition to the new functions, the user interface has been graphically redesigned. Here, too, the focus was on user-friendliness. Bekum made a conscious decision to implement a dark design to ensure that the attention of the operator will be drawn to the most crucial elements due to their strong contrast.



New Dashboard

The new “Bekum Control 8.0” machine control system simplifies the operation of the machine and provides the operator with an overview of precisely the information that he needs. ■

Special features:

- 24" full-HD display in portrait format
- Create your own dashboard
- Intuitive user interface
- Industry 4.0 capabilities
- Graphical overhaul of the user interface
- Improved menu navigation
- New, practical functions
- Display of throughput and energy consumption

Magnetic Quick-change System for Moulds and Blow Pins

Reductions in the size of production runs and ever-present cost pressures require more frequent production changeovers and demand increasing flexibility from blow moulding machines.

The changing of blow moulds and, in particular, of multiple blow pins is complex and set-up procedures have a direct impact on the productivity of the plant. Where articles being produced are changed often, a quick and reliable method that allows blow moulds and tools to be changed as quickly as possible using magnetic clamping technology and without the need for any additional adjustments is worth its weight in gold.
The magnetic quick-change system for blow moulding machines, available for the first time from Bekum, allows moulds to be changed in just 15 minutes per clamping unit – without the need for tools or special mould carriages. An integrated roller table, which is required in order to remove the moulds, only takes up a small amount of space. Moulds are inserted into and removed from the front of the machine, which means that there is no need to leave space at the sides of the machine for this purpose, allowing more machines to fit into the production area. Moulds can be transported using either a fork lift or a crane. There is no need to use a special mould carriage. All that is required is a magnetic mould platen back to be able to integrate existing moulds into the system, usually simply and cost-effectively. Electrical energy is only required for the clamping system during magnetization and demagnetization. The clamping function is guaranteed in the event of a power outage. ■

New Extruder Generation HiPEx 36D

Behind the name, HiPEx 36 (High Performance Extruder 36D), is a completely redeveloped extruder generation.

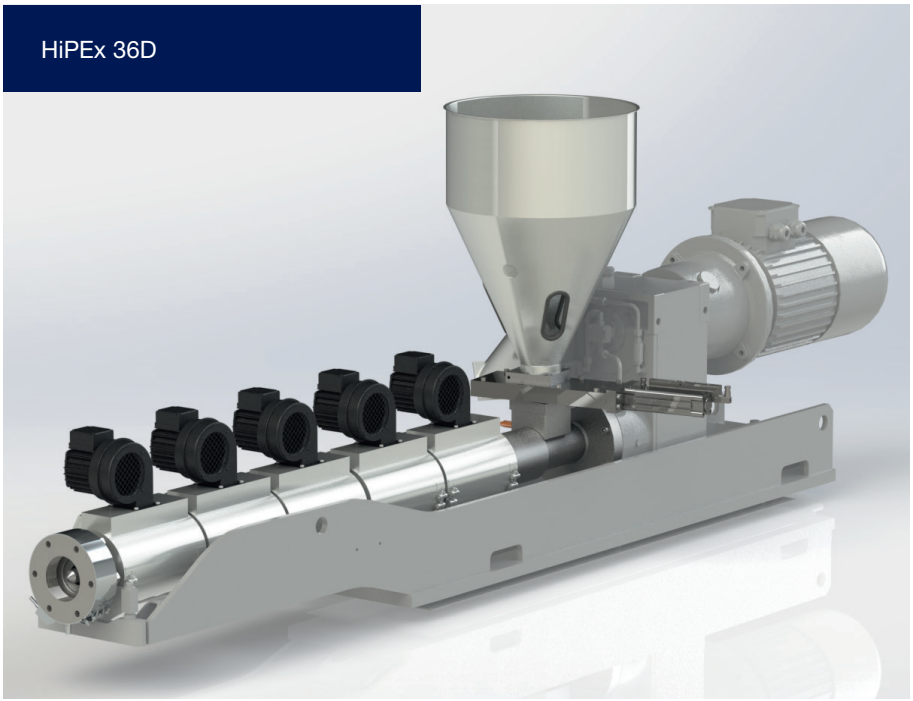
Bekum set itself clear targets for the concept with a view to achieving significant energy savings of up to 20 %, while at the same time providing improved melt quality at lower temperatures. Since extrusion, whether it be performed using electric or hydraulic blow moulding machines, frequently accounts for up to 80 % of total energy consumption, the greatest savings in terms of both energy consumption and cost during production can be achieved through the use of energy-efficient extruders.

Energy Efficiency

Our main focus lay in the efficiency of the system as a whole, which is characterised by an increased output capacity coupled with consistently excellent melt quality and low energy consumption. At the same time, a flexible, yet simple construction concept was created that has proven extremely successful both during internal testing and in customer applications. When it comes to drive concepts for directly driven gears and new IE5 extruder motors offering high levels of efficiency, Bekum is committed to offering its customers cutting edge solutions.

Homogeneous

The high throughput capacity is reliably guaranteed thanks to the meticulously coordinated geometries of the screw, the feeding zone and the barrel. The relationship between the high output rate and the small screw diameter leaves additional installation space for longer extruder screws. Thanks to its installation lengths of 36xD in combination with improved mixing zones, the screw constantly supplies the extrusion tooling with melt that is homogeneous in terms of both temperature and material blend. The combination of excellent colour mixing within the melt and low melt temperatures is essential for blow moulding. The reduced temperature allows for improved processing, faster cooling times and therefore increased productivity for customers. At the same time, the reduced pressure profile in the feed zone ensures reduced wear and, as a result, a longer service life.



HiPEx 36D

Together with the drive system and the extruder heating, the operating behaviour of the system as a whole is especially energy efficient. The specific amount of energy consumed, which is determined on the basis of the sum of the drive output and the heat output, is particularly low over the entire speed range.

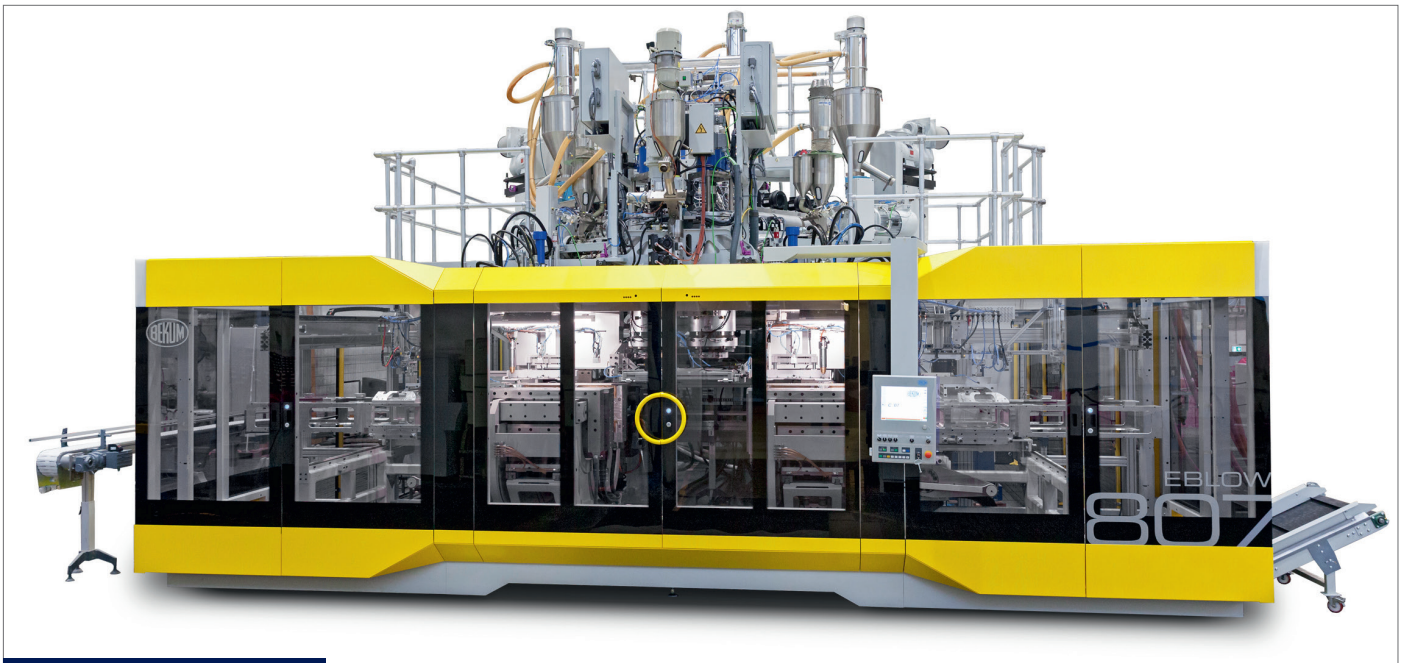
With the new Bekum HiPEx 36D generation of extruders, nothing stands in the way of economical production. ■

FURTHER INFORMATION:

Your contact person for our innovations for the K 2019

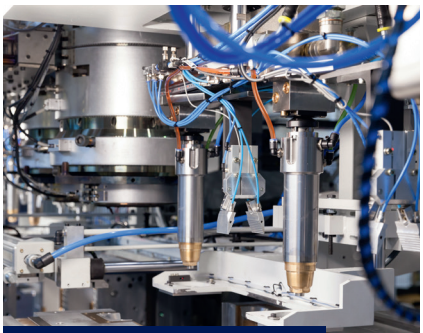
Mr. Philippe Zahn
Phone: +49 30 7490-2272
E-Mail: p.zahn@bekum.com

EBLOW 807D – 500 kN
The Largest Blow Moulding Machine for Packaging



EBLOW 807D

The EBLOW 807D extrusion blow moulding machine is the latest and the largest addition to Bekum's EBLOW electric series. Thanks to its large clamping platens and configuration flexibility, this new shuttle-style double station machine, which is already proving very popular, can be used for a wide range of different applications. According to EUROMAP 46.1, the EBLOW 807D achieves the highest energy efficiency class of 10. ■



Blowing station

Special features:

- New, innovative machine design
- Magnetic quick-change system for moulds
- Well coordinated high-output extrusion systems with speed-regulated, energy-efficient direct drives
- Patented C-frame clamping units guarantee the precise distribution of force in the area of the mould and ensure that the platens are perfectly parallel
- Excellent pinching off of flash ensuring the optimum welding of neck, tail and handle seams
- The space within the C-frame allows for the installation of an optional bottom blowing station

Excellent versatility for production:

- From larger canisters to containers with handles, it is possible to manufacture a diverse range of hollow containers
- Up to 2 x 16-cavity multi-cavity production for slim, round bottles
- Clamping plate height of 500 mm, which allows for mould heights of max. 550 mm with overhang of max. 50 mm
- Max. mould width of 1,060 mm
- Clamping force of 500 kN
- Various configuration options for mould thicknesses of up to max. 2 x 200 mm with maximum mould opening distance of 335 mm
- Various cutting devices and a r ange of different article removal systems guarantee optimal machine configuration for virtually every application in the packaging sector

Circular Economy with Tri-extrusion Technology

The circular economy is one of the hot topics of K 2019. The ability to open up a range of applications for processed plastic waste is one of the key tasks that needs to be addressed as we move towards a circular economy.
The ability to contribute to the implementation of practical circular economy solutions is one of Bekum's primary concerns.

For a number of years now, Bekum has been committed to the circular economy and has been delivering solutions for the cost-effective use of correctly sorted PE or PP post-consumer recycled materials. That is why Bekum was presenting 3-layer bottle production that included the processing of recycled materials as early as at the 2007 K Trade Fair. By using Bekum's tri-extrusion technology and three-layer heads, it is possible to create resource-efficient blow-moulded containers. During this three-layer process, the recycled material (PCR) is embedded in the middle regrind layer between thin-walled inner and outer layers, which are manufactured from virgin materials. Of particular ecological concern is the ability to achieve the highest possible PCR loading in the middle regrind layer, taking into account the geometry of the moulded part, in order to reduce the overall consumption of new plastics within the production cycle. The ability to guarantee that the plastics have been correctly sorted is crucial for this. It is only possible to easily recycle the three-layer product at the end of its useful life and reintroduce it into the circular economy if the inner layer, the outer later and the regrind layer are all made of the same material.

In addition, the use of PCR in the middle layer can often bring about a reduction in the cost of manufacturing containers. ■

The Interview with Mr. Stauch, Röchling Medical Neuhaus

Röchling

Alexander Stauch is Managing Director BU Medical Europe der Röchling Medical Neuhaus GmbH & Co. KG. The editorial staff of bekum*news* spoke with him about his production.

bekum*news*: Mr. Stauch, the Röchling Group, to which RMN belongs, manufactures medical plastic products – customized and of high quality. Recently, you installed two fully electric Bekum blow molding machines for cleanroom operation of very specialized Co-Ex containers. How is the production going?

Alexander Stauch

A. Stauch: The entire project team from the plant supplier to the technicians can proudly look back on a very successful project and a very good start.
Production on the Bekum blow molding machines has been running very efficiently since the start of series production and we were able to produce, and even increase, the planned production volume thanks to the high availability of the systems. During project implementation, we were always able to rely on the experience of Bekum as a system supplier for Co-Ex blow molding machines with the special solutions required for clean room production.

bekum*news*: In your opinion, what was the biggest challenge of this project?
A. Stauch: The biggest challenge in this project was the extremely high-quality requirements of the customer for the items. The production facilities are equipped with specially developed camera systems and a large number of servo-drive controlled movements to ensure the process reliability demanded by the customer. From a hundred percent repeatability of the movements and uniform wall thickness distribution to the simple article slide everything had to be qualified and validated to ensure the quality and production reliability we needed.
Production data acquisition from Bekum machines is also a current basic requirement for the production of primary packaging.

bekum*news*: That sounds like many special medical solutions. Do you also use Bekum systems for standardized products?
A. Stauch: The question can be answered with a clear „yes". Key in the decision is, on the one hand, the project management of Bekum and, on the other hand, the excellent co-operation. With Bekum, as an equipment manufacturer, and us, as a customer, we were able to master the challenges together as a team. Thus, we have decided to invest in additional Bekum blow molding machines for the production of pharmaceutical products.

bekum*news*: Mr. Stauch, we thank you for this interview. ■

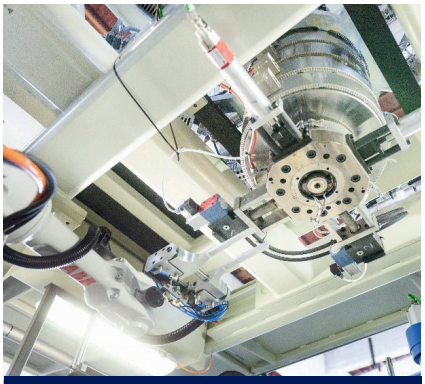
3D Blow Moulding – A Specialized Activity with Very Specific Requirements

3D blow moulding technology is primarily used for the production of tank filling pipes. Using this process, it is possible to manufacture any type of multi-layer, three-dimensional pipe with the highest degree of productivity.

Unlike conventional blow moulding technology or other 3D machines, with the Bekum BAR 10D blow moulding system, the mould sections are already moving back towards the clamping unit during the loading procedure. As soon as the parison has been loaded, the mold is closed and the blowing process is able to begin immediately. This enables very short cycle times of under 30 seconds to be achieved.

The precisely extruded parison is detected by a state-of-the-art camera system and its length is recorded. A robot inserts the parison into the three-dimensional cavity of the lower mould section with a high degree of precision. This precision is crucial to ensuring that no pinch-off seams are created on the parison during clamping of the mould.

The two identical clamping units guarantee excellent repetition precision and can be equipped with different moulds or products. In addition, the machine offers the option of selecting one-sided operation, which allows the blow mould in the second clamping unit to be changed. Thanks to this ability to equip the machine in stages, it is possible to change products without interruption!



7-layer Co-Ex-Head

The BAR 10D offers ultimate flexibility with a compact design. ■

Flexible large blow moulding system for canisters and wide-neck drums

The BA 62S large blow moulding system is a veritable workhorse!

This tried-and-tested and compact machine type was designed to cover a broad range of products. The most popular applications range from 60 l canisters to 120 l wide-neck drums, special parts for air conveyance and spoilers for the automobile industry, as well as a diverse range of technical parts. It is available in a range of designs and offers equipment to enable the optimal changing of moulds and dies. The combination of tie rods (bars) and a centrally positioned die ensure perfect clamping force distribution throughout the entire blow moulding process. The system shown in the image has been equipped with a Bekum spiral mandrel accumulator head. This enables improved mixing of colours and significantly reduces the time required to change colours. Also noteworthy is the fact that this allows for the perfect processing of PCR (Post-Consumer Recycled) materials. Even difficult materials, such as polypropylene and HMPE can be processed perfectly using this head.

Bekum BA 62

Depending on the product, the BA 62S can be equipped with a Bekum continuous spiral mandrel extrusion head. As a result, both mono-layer and Co-Ex containers (e.g. 3-layer containers) can be manufactured. This machine can also be designed with a mobile clamping unit (shuttle) for this area of application. The removal of items is crucial to the flexibility of this type of machine. This can take place to the left or the right and both transverse to or along the extruder axis.

This simple, yet well thought out machine concept for the BA 62S is turning heads, as can be seen from the strong demand from our customers. ■

Bekum's got a handle on it – PET Handleware

Over the past several years, Bekum has optimized our PET processing technology, through extensive extrusion system developments, machine optimizations and overall PET process know-how gains.

The extrusion blow moulding of PET bottles integrating a true flow-through handle identifiable as #1 recyclable PET has long been a packaging goal for consumer products groups. By year's end, a total of sixteen (16) Bekum HYBLOW 407D and HYBLOW 607D machines will be engaged in round-the-clock, fully automated production of handled bottles in fully #1 recyclable PET – this increases the total installation for this application to 40 machines in North America.

Extrusion System for PET

Extensive extruder and feedscrew development has been performed by Bekum to address the primary challenges of extruding high viscosity PET. The shear sensitivity of PET at higher throughput rates can drastically increase stock temperature and reduce parison hang strength. Also regrind presents a problem due to the differences in melting characteristics and bulk density of bottle/flash flake. Bekum's Extrusion System development results in consistent PET material throughput at acceptable stock temperatures when running up to 50% process regrind.

„Profit from our Experience in PET Handleware"

Gary Carr, Bekum America Corp.

Extrusion Head for PET

Bekum's parsion over parison BKZ range of extrusion heads have proven to be an excellent solution for PET processing. Knit lines are hidden on parting line and are less apparent thus leaving panels looking gorgeous.

Not all tonnage is created equall:

Clamps with high tonnage but poor force distribution do not work well for the tough trimming requirements of PET handleware applications. Bekum's patented C-Frame clamping units have demonstrated excellent PET handleware trimming performance.

The extrusion blow moulding of #1 recyclable PET, particularly handleware, coupled with the current high interest from Brand Owners will result in exciting new packaging opportunities. ■

Crystal clear PET containers

Several 20 Liter Canister Machines Being Installed In North America

Bekum America has recently sold five of our very successful BA 34.2 / EBLOW 37 machines in North America. All are highly specialized and include very unique processing features – for the automatic production of stackable canisters.

2 x EBLOW 37

This includes two full electric EBLOW 37 High-Speed Machines with 3 layers and view stripe producing 20 liter UN canisters at 1200 grams with rates of up to 150 parts per hour – from a single sided and very compact machine design.

3 x BA 34.2

The other three machines are single sided BA 34.2 systems. One includes an accumulator head that also runs in continuous extrusion mode, producing 20 liter canisters with top blow – and 30 liter drums ▶

with bottom blow, parison stretching and internal neck formation. Another BA 34.2 is a 6-layer, co-extrusion machine for 20 liter canisters, and yet another will produce 20 liter edible oil canisters in 2 cavities from one mold, including a special product design with a 90 degree stacking feature.

With a very impressive reference list of over 100 machines installed, the Bekum canister machine series continues to be tremendously successful around the world. Available in both electric and hydraulic versions, single and double sided executions, high speed and multi-layer configurations – Bekum offers a complete canister machine solution for the demanding needs of the global market. ■

EBLOW 37

The Bekum Large Size Blow Moulding Machine Program

The Technology the Industry Wants with the Return on Investment the Market Demands.

Chuck Flammer is Business Development Manager at Bekum America Corporation. The editorial staff of bekum*news* spoke with Chuck about the Bekum large size blow moulding program.

Chuck Flammer

bekum*news*: Chuck, how do you rate Bekum's US large size blow moulding market?
Chuck Flammer: Bekum has long been known as a leader in the blow moulding industry. Recently, Bekum have been more associated with the packaging market for containers up to 20 L where Bekum have had the largest market share. The industrial market, while as not as stable as packaging, has plenty of untapped opportunity for larger equipment. Like most markets, there is an increased pressure to keep capital equipment investment low. At the same time, customers are looking to machine builders for innovation, increased machine utilization, flexible design, as well as intuitive controls.

bekum*news*: The requirements do not differ so much from those of the packaging machines. What must Bekum do?
Chuck Flammer: As with any customer driven market, the first step was to approach our customers and get their feedback and requests. As one would expect, each customer had their own formula for success, but there were plenty of overlapping needs e.g. more flexibility with the equipment. This means different size platen dimensions with various tonnages based on what the customers view of what they may do in the future. On top of this, they also want the smallest machine footprint as well as increased machine safety for their employees.

bekum*news*: And which production variants are desired in the future?
Chuck Flammer: From an innovation standpoint, Bekum will offer machines with monolayer/accumulator head version, or continuous/multilayer version. The multilayer option will allow for barrier, color cost savings or maximizing the use of post-consumer resin – a current sustainability goal in the plastics industry.

The goal is to encourage collaboration with our customers and our suppliers to produce the best machines for their customized needs.

bekum*news*: We thank you for this interview! ■

New Remote Maintenance Concept

The requirements in terms of network and data security for machines have been rising steadily in recent years.

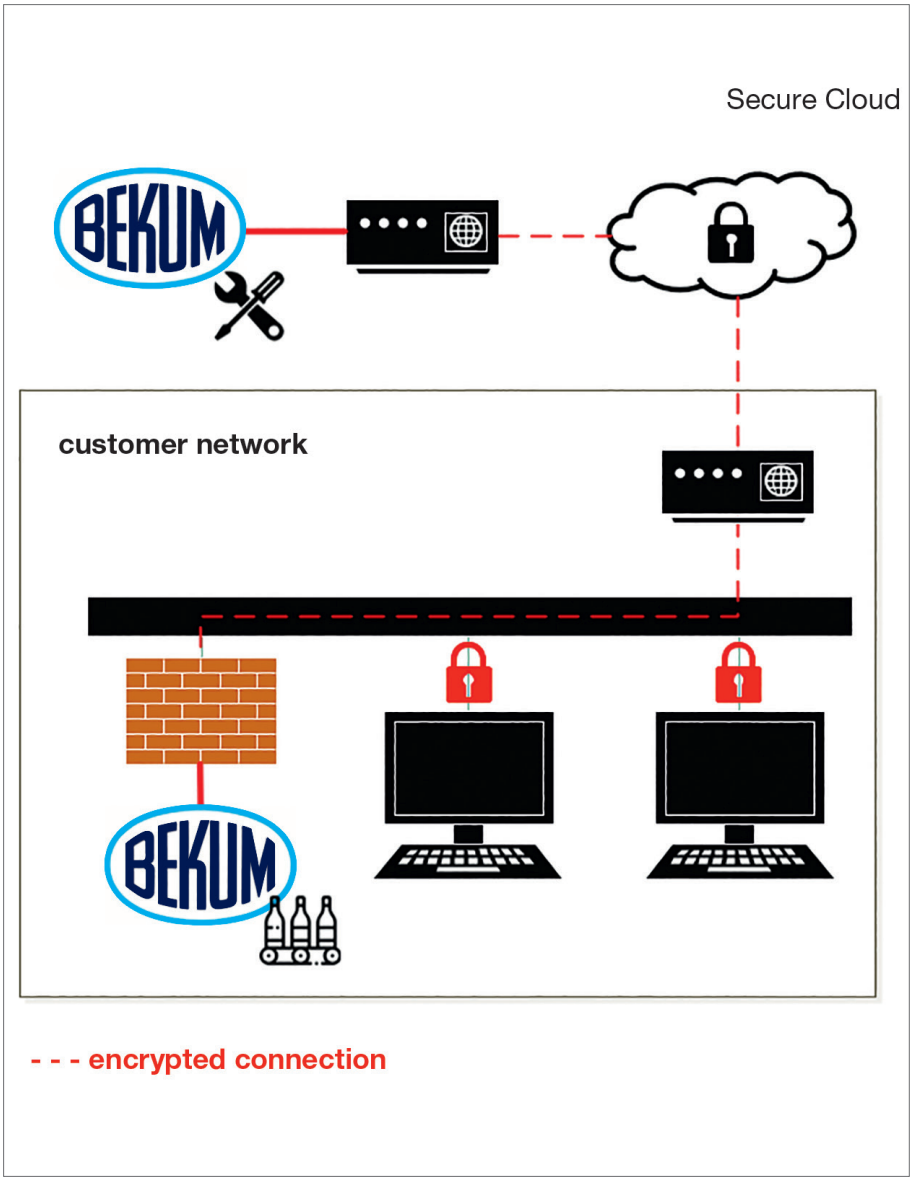
Remote access to customers' production networks involves a great deal of organizational and technical effort. However, the machines must be available for remote maintenance around the clock.

In order to meet these stringent requirements and to reduce the burden on the customer, Bekum has introduced a new remote maintenance system. In order to benefit from the remote maintenance system, the customer simply needs to provide an internet connection. The system, which is produced by the well-known manufacturer, thereby guaranteeing that all guidelines and legislation in the area of ICS security will be met.

The use of this technology ensures that the machine network for the Bekum system is separated from the customer's production network by a firewall. This ensures that mutual interference can be excluded. Bekum does not connect to the customer's network; instead, we connect directly to the machine. In order to enable the remote maintenance connection, the customer must activate a key switch on the machine. The customer is therefore fully in control.

Particular care has also been taken to ensure that all of the components of the machine are equipped with an ethernet interface to ensure that these can also be accessed remotely by the Bekum support team.

This remote maintenance system provides Bekum customers with fast and secure troubleshooting for all components by the Bekum support team and therefore offers a key benefit for our customers. ■



The features:

- System is separated from the customer's production network
- Total control through login connection approval
- Logging of the activities

FURTHER INFORMATION:

Mr. Florian Mosgöller
Phone: +43 2783 4111-324
E-Mail: f.mosgoeller@bekum.com

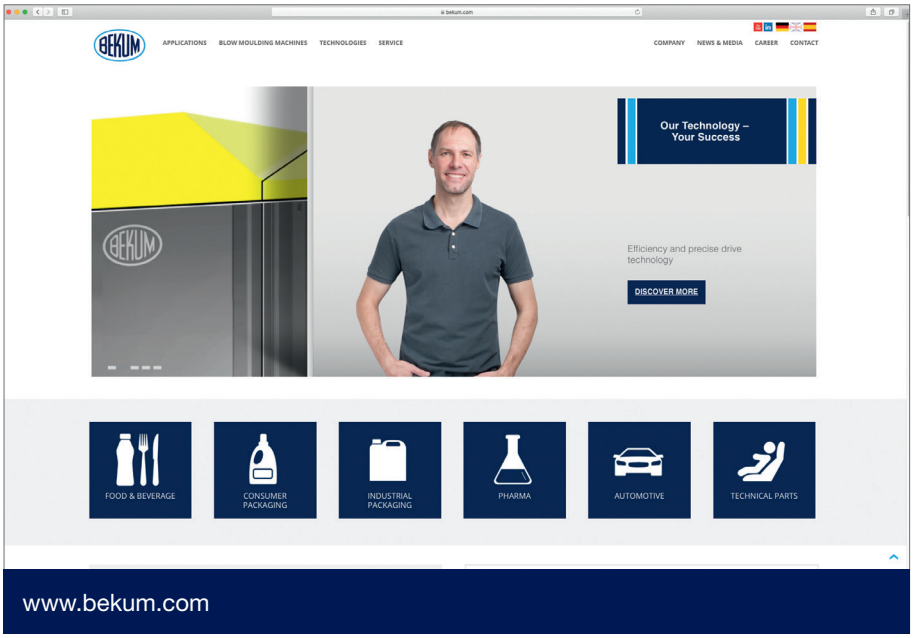
Bekum – Shift to the 2nd Generation!

Following on from the realignment of our corporate identity, Bekum is showcasing its future-oriented approach with a new, contemporary design.

The famous Bekum logo forms a solid foundation for a new colour scheme and represents both continuity and development. The newly chosen corporate colours of dark blue, cyan and yellow bring together our corporate values of quality, service and technology and speak to our setting the future benchmark for blow moulding machines. Our slogan is a service commitment to our customers; we make it our motivation and mission to ensure their satisfaction.

Our newly designed website is a clear indication of this change: modern, intuitively navigable and informative. See for yourself at www.bekum.com.

Our LinkedIn profile and YouTube channel will also provide you with regular updates, insights and information concerning our company, our products and the field of plastics processing. We would be delighted if you were to follow us on social media, too! ■



Blow Moulding Conference 2019

At the third international Blow Moulding Conference, our young engineer made an excellent impression with his lecture on the subject of the extrusion of high-quality bottles using polypropylene.

Polypropylene bottles are transparent, able to withstand higher temperatures and can be recycled. They can be recycled via existing recycling streams and can, therefore, be introduced into the circular economy. However, the material is somewhat tricky to process, since it demands a fast clamping speed coupled with a short clamping force build-up time. Bekum has developed a drive combination consisting of an electro-mechanically actuated fast clamping movement and a servo-hydraulically actuated power stroke, which meets both requirements. ■

Highly-efficient IE5 extruder motors

Bekum uses motors with high energy efficiency in its extruder drives.

As is stipulated in standard IEC TS 60034-30-2: 2016-12, our permanent magnet-supported, synchronous, reluctance motors achieve efficiency class IE5.

This high level of efficiency is achieved thanks to the robust mechanical design of the motor. Thanks to the reluctance principle applied, which involves permanent magnets within slip-free running rotors, electrical losses are almost completely avoided and very little heat is generated. Within the electronics of each of the frequency drive converters, the electrical load angle has been optimized from the point of view of control, thereby producing even greater torque efficiency.
The ferrite magnets, which are used within the rotor instead of rare earths, are also a step in the right direction towards sustainability and environmental protection. ■

Mechanical In-house and Job-order Production

CNC production

As experienced and long-time specialists in the fields of mechanical engineering and machining, Bekum offers a comprehensive range of services.

From planning and design activities performed with state-of-the-art CAD/CAM technology right through to assembly, we will provide you with a complete solution from a single source – with flexibility, passion and maximum precision!
Thanks to our state-of-the-art production methods, we make it possible to process virtually any material. Our company is characterised by its flexibility, rapid handling and quick order completion, as well as its ability to meet the most stringent of standards. Our use of CNC machines with up to 5 axes allows us to manufacture precision parts from all conventional materials. Alongside our CNC manufacturing facilities, we also possess conventional machine tools, such as turning and milling machines, horizontal boring mills, cylindrical and surface grinding machines.
Please do not hesitate to contact us at p.buchinger@bekum.com. We would be delighted to inform you of the range of services that we offer! ■

Small investment – Big Impact

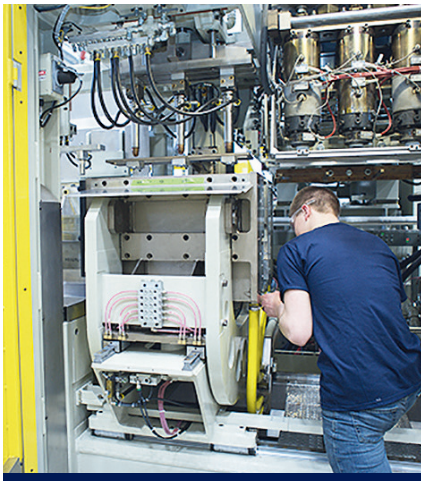
Bekum's experienced maintenance and service teams ensure rapid repairs and seamless maintenance work for our customers' systems.

This guarantees technical availability and makes a sustainable contribution to protecting the customer's investment in their production facility.
Our services are 100% tailored to the needs of our customers and they help to resolve technical issues and to avoid unplanned downtime to ensure that production machines can be operated safely and efficiently. ■

To ensure optimal system availability, we offer

- An emergency customer hotline
- Service technicians
- Spare parts
- Refurbishments and upgrades
- Retrofits
- Preventive maintenance
- Remote maintenance
- Prototype sampling
- Training & courses

Allow us to make you an offer and check out our services!
More information at:
www.bekum.com/en/service



Preventive maintenance

bekum*news*

Latest Information for Customers, Partners and Employees

Bekum Maschinenfabriken GmbH
Kitzingstr. 15-19
12277 Berlin
Germany

Phone: +49 30 7490-0
Fax: +49 30 7490-2441

sales@bekum.com
www.bekum.com

Bekum Maschinenfabrik Traismauer GesmbH
Venusbergerstr. 40
3133 Traismauer
Austria

Phone: +43 2783 4111-0
Fax: +43 2783 4111-109

info@bekum.com
www.bekum.com

Bekum America Corporation
1140 West Grand River Avenue
P.O. Box 567
Williamston, Michigan 48895
USA

Phone: +1 517 655-4331
Fax: +1 517 655-4121

sales@bekumamerica.com
www.bekumamerica.com

NEWS/EN/C&G/09.19