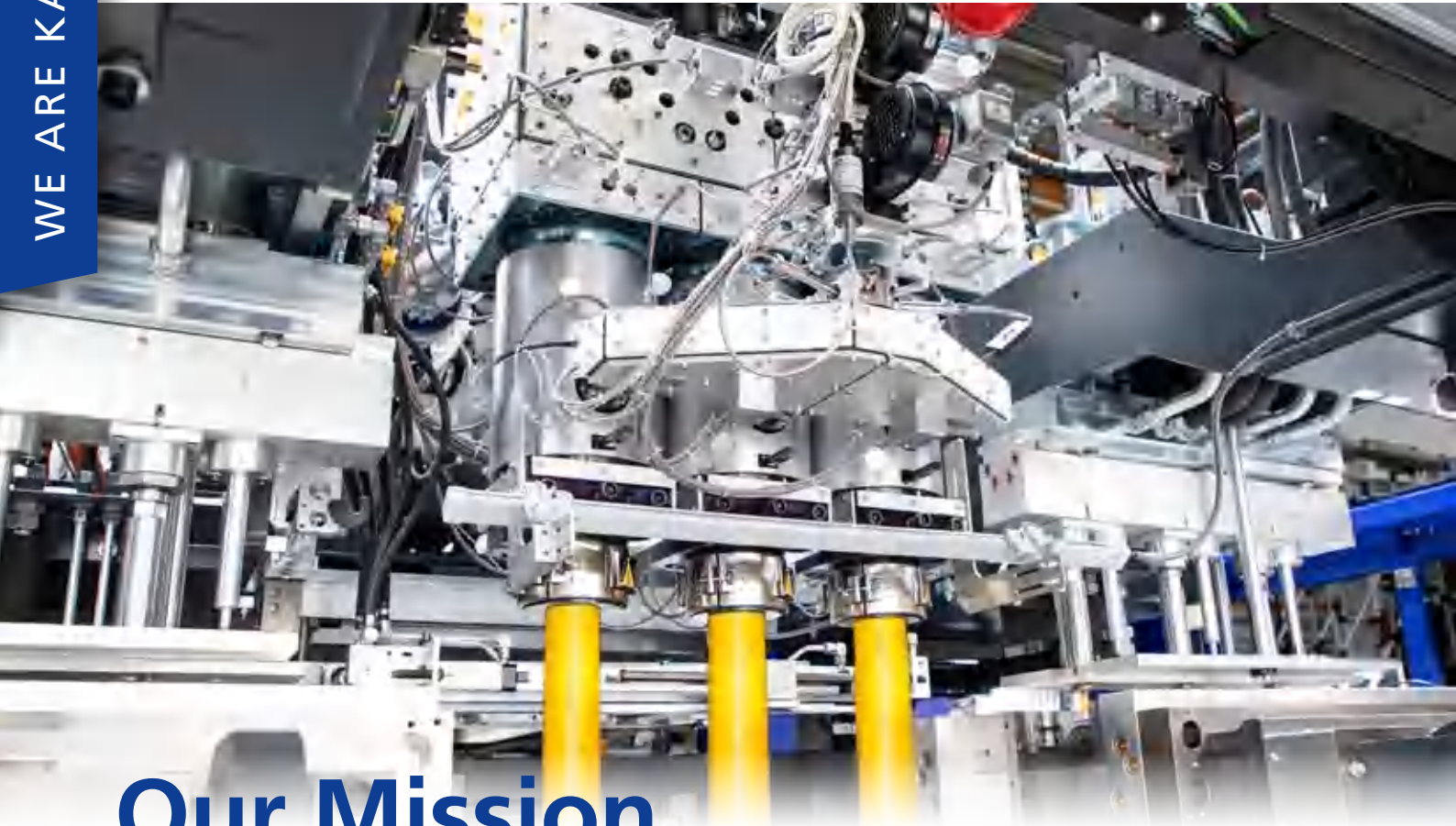


WE ARE KAUTEX



## Our Mission

Development of Smart Production Solutions for added Value Creating Plastic Products

**Sustainable Innovation**  
#madebykautex

# Decades of Plastic and Solution Engineering Experience



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# Kautex Today

## Our Vision

We are the global and diverse Kautex team, together **with customers and partners, to create leading change and added value!**

## Our Philosophy

- Final plastic product focus
- Leadership excellence
- Process excellence
- First-time-right

## Our Mission

Development of smart production solutions for added value creating plastic products – **Sustainable Innovation!**



## Kautex Today – Develops Smart Production Solutions for Added Value Plastic Products

**Plastic and sustainable innovation is our passion. At Kautex Maschinenbau System GmbH we create smart production solutions for added value creating plastic products in extrusion blow molding.**

But we want even more. Our aim is to join our customers and partners in assuming a pioneering role in transition and the creation of added value.

Future needs origin. Our family firm was founded in Germany in 1935.

As global market leader we employ around 500 #KautexExperts worldwide. Our main production locations are in Germany and China. We employ more than 150 people in the fields of sales and service on all continents, so we are close to our customers wherever they are.

Today we have the advantage of know-how in many areas – we work in a way which is global, agile and adaptive. Over 100 colleagues are involved with innovations on a continuous basis.

These include the further development of the digital twin of extrusion blow molding platform.

The greatest weight reductions, the processing of resource-efficient or recycling materials all form part of our DNA. Kautex Maschinenbau System GmbH thereby makes a major contribution to resource conservation on our planet.



# Kautex Sustainability

Living Sustainable  
Innovation – already  
today



## Environmental Sustainability

- Member of the R-Cycle community
- Cooperation with post-consumer recycled plastic producer Braskem



## Individual Sustainability

- BeOne culture
- Lifelong learning possibilities
- Talent management



## Economical Sustainability

- KPI transparency
- Family-holding owned with plastics focus
- Brand value evolution



## Social Sustainability

- Cooperation with regional universities and schools
- Relationship management with local plastic associations

## The Kautex BeOne World of Sustainability

**Sustainability has always been an important part of the corporate DNA for Kautex Maschinenbau System GmbH. Especially with regard to future global challenges, however, the topic is taking on an increasingly central role.**

### Our Sustainability Vision

Our highest priority is to make our customers' products better and more sustainable.

### Our Sustainability Mission

Moving the whole industry from a linear to a circular economy by creating a symbiosis of adding value.

Environmental  
Sustainability



Individual  
Sustainability



Our Sustainability  
**VISION &  
MISSION**

Social  
Sustainability



Economical  
Sustainability



# Kautex Services ...

## **Spare parts and accessories**

Our decentralized storage of spare parts, combined with a network of branches and service partners secures quick service world-wide.

## **Data Cap**

Data Cap offers data acquisition packages that you can use to set up a central data acquisition system for your Kautex platform solutions.

## **Remote diagnostics**

Users of Kautex solutions can play it safe with the remote maintenance service from Kautex Maschinenbau System GmbH.

## **Global field service**

Kautex Maschinenbau System GmbH provides global field service with local service technicians in 15 countries.

Our international team of service specialists will provide you with reliable support for all issues concerning your extrusion blow molding platform.

## **Modernization**

We provide our customers at Kautex Maschinenbau System GmbH with comprehensive opportunities for modernization via the retrofit program. This helps you to remain competitive!

## **Training**

Our expert trainers and tailored teaching concepts provide you with the necessary know-how for trouble-free processes and successful production. We offer all trainings online as well.



# ... and Data Management



## How we live „first-time-right“ in service

In production every minute counts. Customers want quick responses, release of parts and immediate visits of field service technicians. The hurry is well understood. However, key to success is a thoughtful systematic analysis of the problem first, to be able to implement a sustainable, permanent solution to a certain problem. With our combination of service tools we do just that. Our remote service team will investigate the problem first, will talk to production and maintenance personal, then log-on to the machine and analyse data. Then they have a clear picture of the root cause and align internally with spare parts department and field service for the next steps.

If the machine has aged, or new functionalities are required, we are ready to define with the customer options to update the machine to an actual technical level. And then, in combination with a matching training program for the machine operators we will make sure, that the customer enjoys the full benefit of such a modernization project.



# Our Portfolio

MAX

QUALITY



**OUR PASSION – Increasing  
the Final Plastic Product Quality!**

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**Sustainable Innovation**  
#madebykautex

# Melt Management Systems

## Highest Product Quality with Kautex Melt Management Systems

**The melt management system of a production solution is a core for the final plastic product quality. Your benefits:**

- Low product cost and high mechanical properties
- High efficiency
- Right output
- Wide range of processing materials (like PCR)
- Focus on the final plastic product

**We achieve those benefits by really understanding plastic. Benefit from our Know-How:**

- Right weighting approach
- Rheological optimized flow channels
- Continuous and discontinuous extrusion
- Multi-layer technology
- Simulation based extrusion



*For us, melt management is part of our foundation and key knowledge. We focus on understanding plastics and rheology through simulation and have gained tremendous experience over the years.*



# Technical Center





## Highest Product Quality with the Kautex Technical Center

**With our Technical Center, we are increasing the performance of your final plastic product from the beginning of your project. Your benefits:**

- Sustainable product developments driven by advanced engineering
- Faster time to market with optimized advanced products
- Knowledge developments

**With our scientific approach, we develop knowledge throughout the whole process. Benefit from our Knowledge Center of plastic:**

- Scientific understanding of material behavior
- Use of latest simulation technology
- Advanced process expertise development

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*We believe, achieving the highest product quality starts with successful prototyping and material testing together with our customers, followed by optimal pre-verifications for the shortest time to market. Via smart simulation, we further determine the weight, contour, or performance of the customer products in advance - all done in-house in our Technical Center.*

Maurice Mielke | KautexExpert for the Kautex Technical Center

# Molds #madebykautex

## Highest Product Quality with Kautex Molds

**For selected applications, Kautex designs and manufactures its own molds. Your benefits:**

- Focus on final plastic product
- Creating added value for you
- First-time-right approach
- Scientific approach
- Preferred business advisor

**With our engineering team and mold workshop, we can provide you with support through the whole project, benefit from:**

- Prototyping and product design improvements
- Fast time to market
- Strategic partnerships for specific applications



*Molds are an essential part of our production solutions. Therefore, following our BeOne with customers and partners culture, we are working with leading technology partners and in specific cases even our own solutions to achieve the highest product quality.*





# Up- and Downstream Solutions





## Highest Product Quality with Kautex Up- and Downstream Solutions

**With our focus on reliability and our passion to ensure highest product quality, we of course work with up- and downstream solutions. Your benefits:**

- Improve OEE
- Top final product quality
- Better mechanical properties with recycled material
- Flexible control system
- Reduce labor cost and engineering effort

**Kautex has a longlasting history and know-how in solution integration into production solutions #madebykautex. Benefit from:**

- Transparent URS system
- Constant material feeding in the extruder
- Strategic partnerships under one-hand consulting
- In-line quality check
- Standard control environment

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*Strong and long-standing cooperations with our valued partners are a cornerstone for us in our mission to achieve the highest product quality. Their technological expertise perfectly integrated into our production solutions enables our customers to manufacture the perfect plastic product.*

# Advanced Solutions for Composite

## Highest Product Quality with Kautex Composite

**Together with leading partners we are constantly developing the expertise to process PA in blow molding to manufacture CPVs for the storage of hydrogen in dimensions relevant to the industry. We focus on:**

- Market for composite pressure vessels (CPV) has shown tremendous shift to type 4 cylinders
- Metal and alternative materials are being replaced
- Range of applications varies from cooking gas to water filters to large-sized energy storage systems for transport
- Depending on application, type 4 CPVs require different materials and designs to meet strict safety requirements

**We offer various platform solutions to meet your exact product demand. Benefit from our know-how:**

- Wide range of liner sizes (5 liters up to 320+ liters)
- Extensive experience with different materials (HDPE, Polyamide 6, 11, 12, etc.)
- Inhouse Composite Center
- Proven blow molding solution design for high-precision/high-quality products
- Unique possibilities to process new grades of polyamides



***The composite pressure vessel (CPV) market has seen a huge shift to type 4 cylinders replacing metal and other alternative materials. We are supporting our customers in this realignment with our long and extensive blow molding experience, making us the perfect business partner in the production of blow molded liners for a wide range of applications.***

Rajish Raghu | Kautex Expert for Composite



# Our Target Segments





**OUR FOCUS – a Growing Population and Developing Sustainable Innovations for our Target Segments.**

# Solutions for Safe and Functional Industrial Packaging



## Machines for Industrial Packaging

**Industrial packagings play a major role longside consumer packagings. They form an important part of the Kautex Maschinenbau System GmbH range.**

Whether you are looking for stackable jerry cans, drums, IBCs or water cisterns, we offer production solutions for target applications which are perfectly coordinated so that the highest levels of output capacity and product quality are guaranteed. We supervise the development from A to Z and support our customers right through to the product and mold design.

Sustainability and mechanical properties have a significant role to play with industrial packagings in addition to unit costs, function, and weight. Unlike consumer packagings, industrial ones often involve much larger containers,

which may contain particularly expensive or hazardous substances. So we produce containers which comply with UN specifications and are so safe that they can be transported anywhere in the world.

We are constantly engaged in technological progress with our partners for your benefit. Our aim is to increase your productivity alongside ever increasing quality. This means you will always receive the most cost-effective and sustainable solution.



Walter Bestetti | CEO Con Plax New Pac

» *Kautex gives us a real sense of security thanks to its first-class machine technology and excellent customer service, and we want to continue having this guarantee of success.*



# Sustainable Consumer Packaging Solutions





*When it comes to tightly calculated cycle times, high demand on product quality, flexibility and delivery reliability, benchmarks have to be set to comply with high customer expectations. With Kautex machines and services we can achieve those targets.*

Alexander Umlauf-Sauer | Director Sales Sauer Polymertechnik GmbH & Co. KG

## Sustainable Consumer Packaging Solutions

**The production of consumer packaging from plastic is a key part of the Kautex story. We shaped this chapter in history more than 70 years ago already with consumer packages like bottles and much besides.**

Sustainability plays an important role in the eyes of our customers and those of end consumers, together with the visual appearance of the product and its haptic quality. Today it is not just a matter of unit costs and function anymore.

We make it possible for you to combine high product quality and output with sustainability. Running many parts per hour with high quality will boost your production.

Our aim is to continue to reduce the use of material with new technologies, to further optimize the design for recycling and thus make the products even more sustainable. We work closely together with our customers and partners to achieve this. In other words: We develop high-performance production solutions for you which signify two aspects – Sustainable production and low unit costs.



# Solutions for the Realization of Specialty Products



## Production Solutions for the Realization of New Opportunities

**Once you are looking for increasing quantity or quality of produced parts, we are offering a variety of different solutions.**

We enjoy challenges, which enable us to set new standards together with our customers and partners.

Nothing is impossible for us. No challenge is too great. In addition to classical containers, our systems also produce flat parts such as table tops or pallets,

canoes, seat shells, shoe soles, garden sheds, barricades, toys and much more besides.

We are able to support you over the whole project and you can benefit from decades of experience in large blow molding solutions.



*One of the reasons we have been successful in our latest expansion project has been due to Kautex's expertise and knowledge in large part blow molding equipment.*

Richard Hendrickson | President and CEO Lifetime Products



# Storage and Transport Solutions for the Mobility of Tomorrow





*The technological expertise of Kautex has convinced us. In the machinery sector for the production of blowmolded fuel tanks, there are only very few companies with the innovative potential of Kautex.*

**Dr. Serge Dupont | Industrial Director Division, Capacity Equipment  
Plastic Omnium Clean Energy Systems**

## High Product Quality and Highest Safety Standards of the Final Plastic Product for Future Mobility Applications

**We are in a period of change. The drive technologies for all types of vehicles are changing radically.**

Manufacturers are focusing more and more on CNG and hydrogen-powered systems as well as battery-powered drive units. These must withstand high pressure loads and varying climatic conditions, and also guarantee the safe storage of the fuel. Type IV composite pressure vessels come under particular consideration in the motor vehicle sector.

Kautex Maschinenbau System GmbH operates a development center for thermoplastic composite pressure vessels (CPV). We carry out a lot of work with CPV for hydrogen, as well as pressure vessels for braking systems and hybrid drive systems, not forgetting tanks for natural gas-powered vehicles.

Nothing is beyond us. Our ongoing research work makes it possible for us to manufacture hydrogen liners from polyamide for you with a capacity of 300 liters and upwards. We spend every day pushing the boundaries further.

Our services include all stages of the development of the product, from the production of prototypes and small batches right through to the planning and realization of complete production solution.



# About *JWELL*

## *JWELL* is a large manufacturer of plastic extrusion machinery in China



Extrusion, fiber spinning, pelletizing, recycling and medical



Turnover ~900 M€



Mechanical engineering group



Employees worldwide ~3.500



100% family-owned company  
(Mr. & Mrs. He, brother and partner)



6x production sites in China, 1x in Thailand and 1x TC in Spain

## *JWELL* is a perfect fit

### Family-owned company with extrusion background



More than 45 years of experience



Strong financial background to complete Kautex's transformation



Strategic match



Strategic outlook for the next 88 years



Strong background in multiple plastic processes and machinery

## JWELL 's philosophy



Choose the hard and right thing, outperform yourself



Long-term investment and motivation to keep up with the new trend of the industry



Dare to deny the habits that most people adopt and stand up against others' opinions



Perfect the products to the detail with your character strength and belief



Jwell favors technicians with great determination and resilience

## JWELL 's commitment



Kautex will become the Premium Brand in Jwell group



Kautex's German headquarters are retained including factories, R&D, manufacturing and sales



Patented technology and employee information security are maintained



Jwell respects German culture, pays attention to employees, families and health



Jwell will assist Kautex in its development based on its strong supply chain, global sales and service system

# Application Focus Industrial Packaging

Our Production  
Solutions for  
Industrial Packaging



KSH 100 / KSH 200



SKYREEF BLUE



KBB 400 S/D



KCC

## Optimum Preparation for Future Markets

**Industrial packagings play a major role alongside consumer packagings. They form an important part of the Kautex Maschinenbau System GmbH range.**





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# Application Focus Consumer Packaging

Our Production  
Solutions for  
Consumer Packaging



SKYREEF GREEN



SKYREEF BLUE



KBB



KCC



## Optimum Preparation for Future Markets

**The production of consumer packaging from plastic is a key part of the Kautex story. We shaped this chapter in history more than 70 years ago already with consumer packages like bottles and much besides.**



# Application Focus Specialty Products

Which Production Solution for Hollow Plastic Containers Do You Need?



KBS



KCC

## Optimum Preparation for Future Markets

Once you are looking for increasing quantity or quality of produced parts, we are offering a variety of different solutions.





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# Application Focus Future Mobility

Our Production  
Solutions for  
Future Mobility!



KBS



KCC

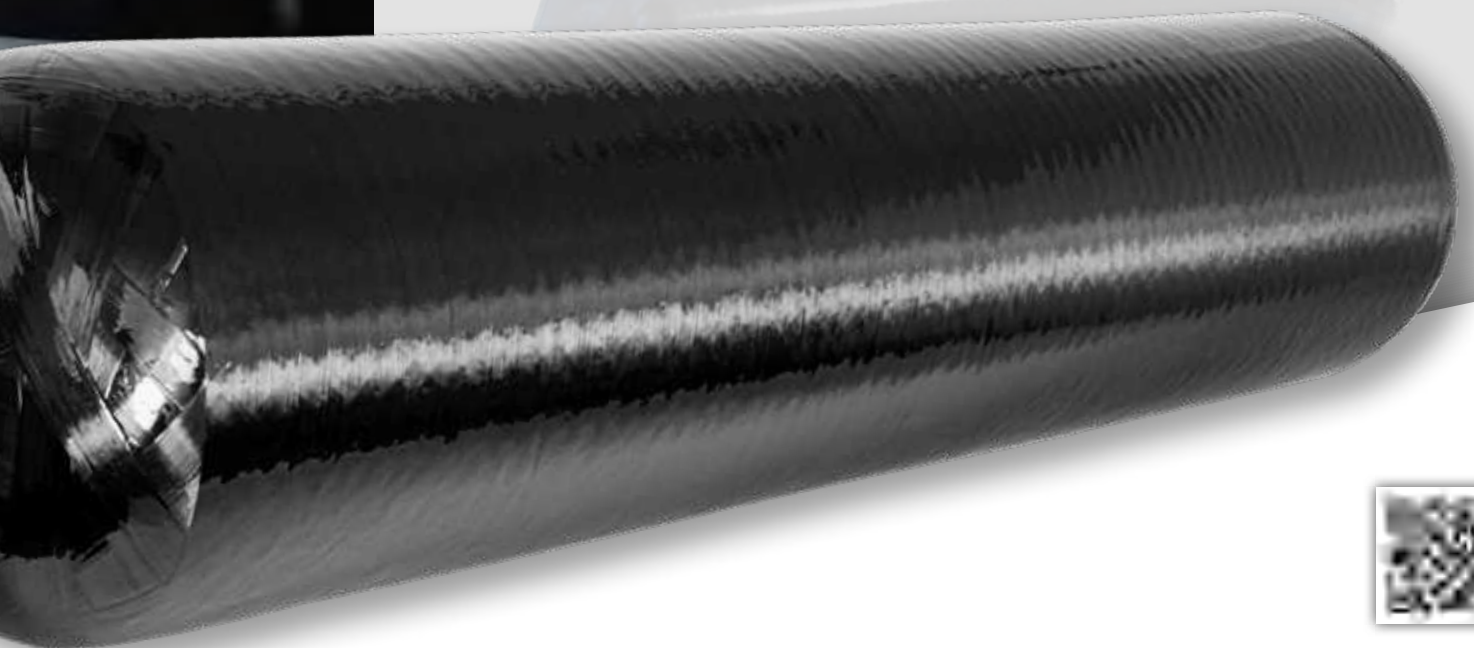


## Storage and Transport Solutions for the Mobility of Tomorrow

**We are in a period of change. The drive technologies for all types of vehicles are changing radically.**



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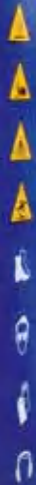


# Our Production Solutions



**Our Solutions to provide you  
your Final Plastic Product  
with highest Product Quality**

**KAUTEX**  
MASCHINENBAU



# SKYREEF GREEN

## SKYREEF GREEN Range

### **SKYREEF GREEN – high precision, high output, high efficiency**

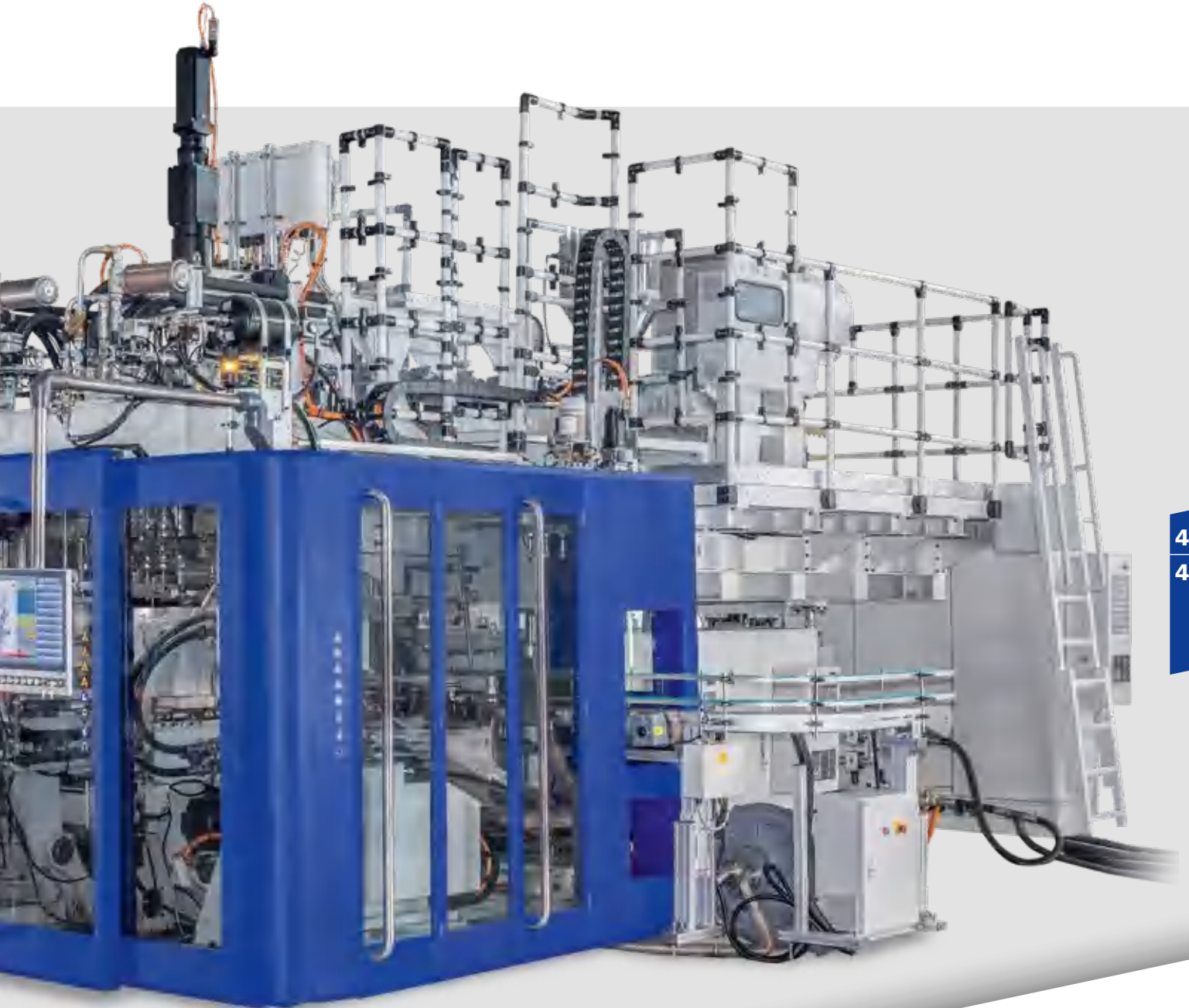
SKYREEF is our answer to fast changing markets using sustainable solutions based on a standardized platform.

The new all-electric SKYREEF GREEN series enables you to combine excellent product quality and attractive production costs

for the highly sophisticated packaging market.

The production solution can be equipped optionally with our new high-performance packaging die heads. The Kautex RapidXChange technology is available on demand.





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YOUTUBE



# **SKYREEF** BLUE





## SKYREEF BLUE Range

### SKYREEF BLUE – the best out of two worlds

SKYREEF is our answer to fast changing markets using sustainable solutions based on a standardized platform.

SKYREEF BLUE is our hybrid machine series which offers a smart combination of electric motion and hydraulic static forces to make your production processes as frictionless and efficient as possible every day.

The hybrid machines are equipped with the new BC 6 control system and optionally with our new high-performance packaging die heads. Kautex RapidXchange technology is available on demand.

With SKYREEF BLUE you combine excellent product quality and attractive production costs, providing the best possible solutions for value-added articles to satisfy your customers.



YOUTUBE



# KBB Extrusion Blow Molding Production Solutions – the Gold Standard in Packaging

## KBB Range

**Maximum performance and minimum energy consumption: The all-electric extrusion blow molding solutions from Kautex Maschinenbau System GmbH are the benchmark for bottle and jerry can production.**

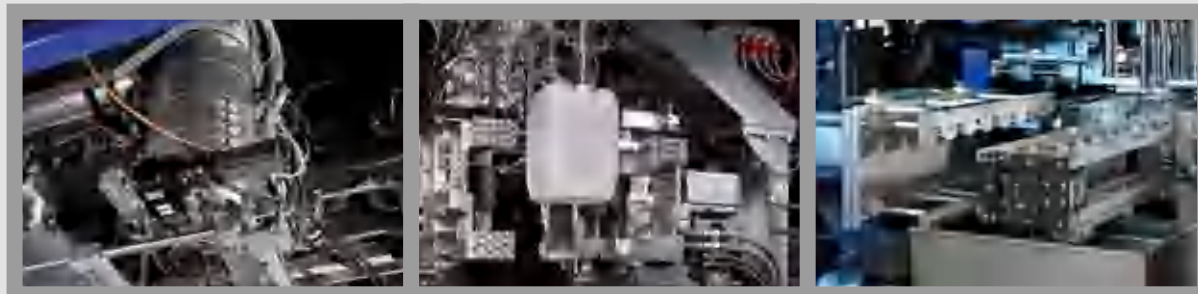
KBB production solutions will transform your production processes to high-performance production thanks to the shortest cycle and fastest change over times.

The second generation, KBB evo, wins our customers over with even higher productivity alongside lower energy consumption and more attractive investment costs. All-electric extrusion blow molding solutions don't just set standards in terms of economy; they also do so in terms of ease of use and material savings.

Multi-layer technology offers benefits like master batch savings as only the external layer gets colored. It additionally offers the possibility to process PCR in the middle layer.

KBB production solutions are available as double stations. The height of the clamping platens and the scope of the installation depth and the daylight opening represent a key distinguishing characteristic for the jerry can production solutions.

The clamping forces of the bottle variants KBB40 to KBB100 range from 250 kN to 500 kN and for the KBB400 (Jerry Can production) 300 kN.





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# KCC Blow Molding Production Solutions – Consistently Focused on Cost Efficiency

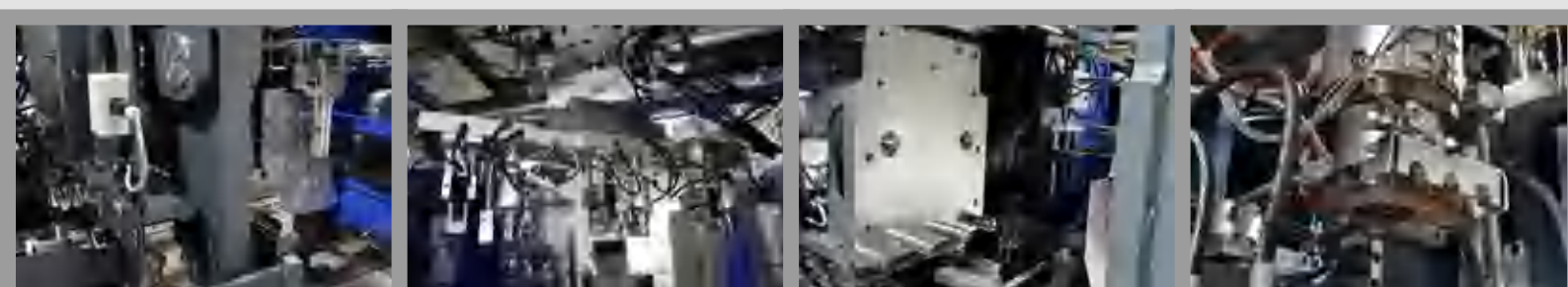
## KCC Range

**Performance oriented and cost efficient at the same time. We have continued to develop the hydraulic extrusion blow molding production solutions of the KCC range consistently over generations.**

The popular all-rounders offer a broad spectrum of possibilities for use, ranging from packaging, through automotive to special applications. We can provide you with the most cost-effective solution for all these uses.

When developing the third generation KCC models, we didn't only modernize the design; we also optimized and added numerous technical features. This enables you to enjoy the most attractive introduction possible to the Kautex world. Most production solutions are available as single or double stations.

The clamping forces range from 60 kN to 400 kN.





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# KSH Blow Molding Production Solutions – Compact and Efficient





## KSH Range

**For plastic drums and IBCs we have developed a dedicated production solution series (KSH) which can run mono and multi-layer.**

Efficient production and investment with an integrated continuous extrusion production solution. They are available as both single and double-station machines according to requirements.

Combining high output with high product quality is the foundation of the KSH series. This leads to efficient and sustainable production.

The KSH series is using continuous extrusion with parison transfer and offers a smaller footprint compared to the KSB series. Equipped with downstream solutions like post cooling, the output can be enhanced even further.

Multi-layer technology offers benefits like master batch savings as only the external layer gets colored. It also enables the usage of processing PCR in the middle layer.

We reduce the use of master batches significantly with the 3-layer ReCo3 production process. This is because a large proportion of regrind can be returned to the production cycle. The cycle time is also reduced considerably thanks to the use of a servo driven parison transfer.



YOUTUBE



# KBS Extrusion Blow Molding Production Solutions – Nothing is Beyond Us!





## KBS Range

**The all-rounder to perfectly fit your needs!**

Whether you wish to produce fuel tanks, canoes in different sizes, complex seat shells, table tops or parts for garden sheds, the extremely durable KBS range of models will win you over with high output rates and it can be adapted to your individual requirements on a modular basis. Many decades of improvement and numerous successful projects speak for themselves.

All KBS extrusion blow molding production solutions are available as single-station solutions and they can be equipped with a comprehensive post-processing system, shuttle operation or the long-proven robot parison transfer, depending on your requirements.



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