

BEKUM MOULDED TO PERFECTION

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BEKUM, A LEADING MANUFACTURER OF EXTRUSION BLOW-MOULDING MACHINES, IS INTRODUCING NEWLY INNOVATED PRODUCT LINES, REFLECTING CURRENT AND FUTURE MARKET NEEDS.

NOULDED TO PERFECTION PROJECT MANAGED BY: DEAN BROWN

Bekum today is a market leader in extrusion blow-moulding machines for blown plastic containers; operating worldwide, it has customers in over 100 countries, ranging from small businesses to major enterprises.

e deliver machines for 66 consumer packaging such as detergents, food, beverages, as well as for pharmaceutical, automotive and industrial packaging, including canisters, drums and IBCs," says company CEO Michael Mehnert, affirming that the group has grown due to its core values of quality, service, and technology. "Quality is key, our machines have a service life of 30-40 years and boast the highest resale values in the market."

FROM PIONEER TO MARKET LEADER

Bekum continues its proud heritage. The company was founded in 1959 in Berlin by Gottfried Mehnert, a pioneer in plastics technology, who developed his first blowmoulding machine at the age of 21. The company has gone on to deliver more than 18,000 machines to factories in more than 100 countries and has earned over 40 patents, some of which now form the industry standard for modern blowmoulding machines.

At the time of Bekum's foundation, it was common practice to inflate and shape the extruded parison from the bottom. One of the most remarkable inventions of Gottfried Mehnert. which now represents the industry standard, was the development of a method to blow the bottle from the top as well as the world's first neck finish calibration, which made the tight closure for bottle caps possible for the first time. Today, all extrusion blown plastic bottles in the world are produced using Gottfried Mehnert's inventions.

Further pioneering followed, developments including PVC blow moulding for edible oil and water bottles, the invention of the world's first double-sided shuttle machine, as well as the 6-layer co-extrusion that opened new markets for oxygen-sensitive products and diffusion-tight fuel tanks. Further inventions, such as tie-bar-free clamping systems at the end of the 1980s, made Bekum a world leader in blow-moulding technology. >>



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NEW SHAPE AND FORM

Six years ago, Gottfried Mehnert placed the management and shares of the Bekum group of companies in the hands of his youngest son Michael, who has since given the company a new impetus, with new machines such as the fully electric 8-series, award-winning machine design, energy-saving extruders, and a modern Industry 4.0-capable control system.

Describing the latest developments Michael Mehnert says: "We have recently opened a new service centre in Austria to support shorter response times and focus our R&D efforts on artificial intelligence, remote control and diagnostics to monitor the machine parameters and minimise downtime, as well as reflect the requirements for a more sustainable operation."

Following his father passing away in August, Michael Mehnert has now taken full responsibility for the business and its future. He affirms that he is ready to take up the challenge, given his previous intensive engagement in company management as well as product innovation.

INNOVATED FOR THE FUTURE

Mr Mehnert acknowledges that the company has recently achieved another milestone with the innovation of its product lines, reinventing nearly its complete product portfolio at once, and introducing a modular design aiming at shorter lead times and reduced costs. 20 new machine models are set to be presented in the K2022 show in Düsseldorf, to ramp up their production in the near future.

He explains that the new developments have been pursued across three lines. The first one is the re-entry into small packaging machines (EBLOW 208D), machines that the company started 60 years ago, with 60 and 120kN clamping force for smaller production volumes in cosmetics or pharma packaging.

The second line is new big packaging machines (EBLOW 1208D) with 1280mm carriage stroke for high output production like food packaging, with a newly developed e-Twintoggle, a full electric clamping system up to 500kN with special innovated bearings and less wear.

And, last but not least, the company will be presenting a new line-up of industrial machines up to 2000kN clamping with a patent-pending clamping unit which is hybrid electric for 220L L-Ring drums or IBC containers.

"All these new machine lines and technologies are my babies, but of course, a big team is working behind this," says Michael Mehnert, adding that in addition to the portfolio innovations, the company is also rolling out Bekum Control 8.0 globally, a control platform with Industry 4.0 capabilities and artificial Intelligence health monitoring for higher equipment availability.

MEETING THE CHALLENGE

While in the past most of Bekum's machines were delivered to the automotive and other heavy engineering sectors. the company has more recently utilised new opportunities in other industries as pharmaceuticals, such supplying highly customised machines for clean rooms. At the other end of the spectrum is the oil & gas sector, where demand for Bekum's canisters, canisters, drums and IVC has increased.

Mr Mehnert points out that just as for any business, sustainability has been a hot topic for Bekum, and one that has been reflected



in the product range. "We have made huge steps in terms of sustainability both in terms of operations and product range," he says.

"The fully electric machines use less energy than the previous machine generations, but we have also introduced 36D high-performance extruders with 20% less energy usage, a significant enhancement since an extruder consumes 80% of production energy. We have also developed new 3-layer spiral heads with dynamic simulation tools, with 80% of the middle head potentially made of postconsumer plastic." Sustainability is not the only area of investment, though. Last year, the company doubled its production capacity in the United States, with 4,500 m2 of production and office space and a new lab for extrusionblown PET, an investment worth \$8 million.

"We are ready to face the future despite the current uncertainty in the markets. Those who will survive will get stronger, making good use of the new opportunities, emerging from the expected market consolidation." It is a fair bet to say that Bekum will be one of them. ⊙

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