

EvoMill
Pre-engineered
300 t/d flour mill

Supporting growth in new milling markets

Bühler has announced the launch of its EvoMill, a best-value, high-quality, and standardized milling solution, aimed at attracting investors into EVolving markets with a high potential for growth. The EvoMill concept is designed to provide Bühler quality at the sort of knock-down prices that will enable a new generation of milling markets to flourish.

Cast an eye over the pages of the milling trade press, and you will find that technological advances abound. The search for ever-more efficient and cost-effective food processing solutions drives a highly competitive industry. It is these incremental technological advances that ultimately result in increased profits. But for some markets, technological potential is less critical than the need to help develop a nascent industry in the most cost-effective way possible. The ability to provide a lower-investment, relatively simple, profitable, and yet highly efficient milling solution is often paramount when it comes to attracting new investors to a market. Which is why Bühler has launched the EvoMill, a state-of-the-art solution that is ready to mill, allowing more sophisticated functionality to be added later.

Bühler built its global reputation on the quality of its advanced food processing solutions. It is now bringing that reputation to markets where the need for best-value solutions provides a sound foundation on which your business can be built. The launch of the Bühler EvoMill allows investors primarily in markets like Africa to benefit from the Bühler brand for reliability, quality, and support, with the lowest possible capital outlay. "It is in regions like Africa where we are going to see the highest population growths over the next decades and we want to provide our solutions where markets are likely to grow the most," explains Peter Striegl, Bühler Head of Grain Innovation Center & Milling Academy, adding that the EvoMill concept can be applied in other regions as well.

According to the United Nations the population of more than half of Africa's 54 nations will double by 2050. To illustrate the scale of this growth it is estimated that over the next 30 years Africa is set to be home to a quarter of the world's population. This is compared with less than 10% in 1950 (Reference 1). It is a demographic shift that is attracting investors into the African milling sector. Milling plays a key role in providing food security for the continent as its products are the primary ingredients for staple foods consumed across different

countries. The demand for lower-investment solutions on greenfield sites, able to produce higher capacity volumes is only set to grow in Africa and other global regions. Bühler aims to target these markets with its newly launched EvoMill.

Best-value solution

Bühler has leveraged the skills it has acquired over many generations to provide the highest-quality milling solutions at the lowest possible cost. Built to process 300 tons of wheat daily the EvoMill uses a pre-engineered design to keep costs to a minimum.

"The EvoMill is designed to produce a basic straight run all-purpose flour with an extraction rate of around 78% based on standard conditions," explains André Kunadt, Bühler Head of Technology for the Maghreb Region. "You also have the possibility of producing one diverted flour, either a low ash flour or a dark flour. We also provide the option of taking purifiers to produce semolina. However, we expect 95% of our EvoMill customers to produce one straight run, all-purpose flour."

Bühler solutions are installed into the EvoMill to handle the intake, cleaning and milling of the raw material through to the interior process bin storage of finished products and by-products and then the packing process ready for transportation. Bühler also provides a digital starter kit that can be developed as the mill EVolves. This includes a digital gateway to connect to the cloud platform Bühler Insights, where data is collected from the production process and is made available to plant operators on customized dashboards accessible by mobile phones, tablets, and laptops to inform about production processes. Bühler Insights is the foundation on which customers can install other digital solutions specific to their needs, giving them the flexibility to design their own ever-more efficient milling processes.

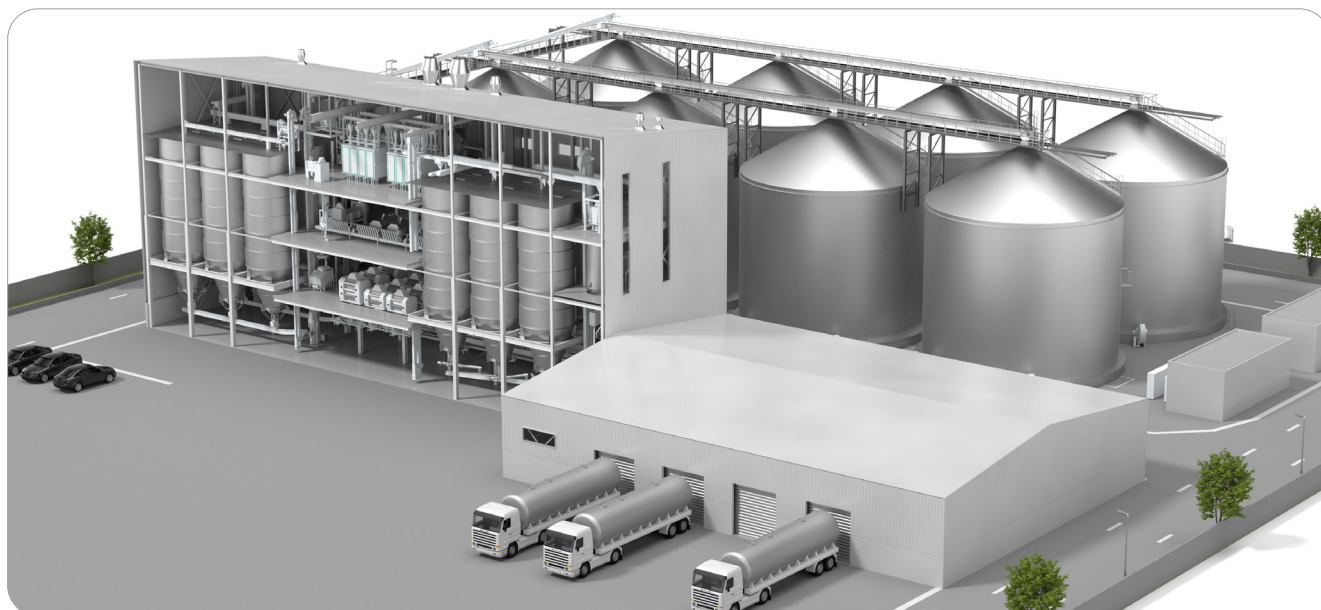


Figure 1.

EvoMill, a pre-engineered 300 t/d flour mill

Included in the starter kit is the Bühler Yield Management System (YMS), that allows plant operators to monitor yield allowing them to compare deviations between different recipe formulations. Intake scales weigh every ingredient that enters the production plant in real time and send the data to Bühler Insights for analysis. Output scales then weigh all the finished products leaving the plant, again sending the data to Bühler Insights. Plant operators now have all the data needed to understand and compare what's coming in and going out and to tweak a production processes or recipes to maximize yield.

Complex logistics simplified

Building a mill on a greenfield site is a complex and highly specialized process. "You have to start with the site works, the site roads, the infrastructure, warehouses, intake buildings, the grain silos, then you need to design and build the plant with its floors and storage bins and then you come to someone like Bühler who provides the mill design and the equipment and all this needs to be coordinated," says Andreas Oertle, Bühler Program Manager EvoMill.

A major investor benefit of the EvoMill concept is that it minimizes and simplifies the coordination between the different companies involved. "By proposing validated and

long-standing suppliers we take the headache out of the evaluation process, so, for example, we suggest working with validated grain silo providers and validated mill constructors and suppliers with whom we have already aligned detail concepts and designs to execute pre-engineered mills. This is one of the ways that we are able to keep the overall costs down compared to a traditional mill," explains Oertle. "It also means that we are prepared to handover pre-engineered building and grain silo concepts and quotations to potential customers. With the buying power of the entire concept in the hands of the investor it provides viable alternative to the turn-key concept".

The idea behind the EvoMill is to keep things as simple as possible for the customer. Individual contracts are drawn up for the building process, silo installation and milling solutions, ensuring that the interface between each solution provider is clearly delineated. Having worked with trusted partners in the past means that surprises are kept to a minimum, which means that costs are much more likely to be kept within budget and time schedules can be more easily estimated and met.

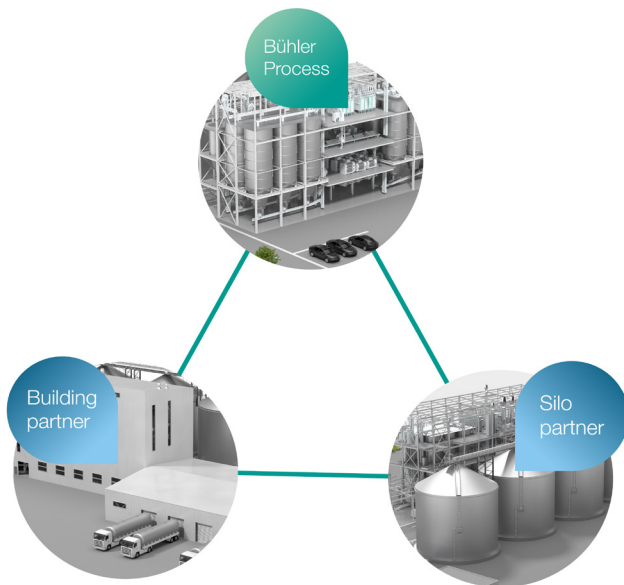


Figure 2.
Well-trusted, long-established partners with many years of experience work together on the EvoMill.

Well-trusted partners

The partners that Bühler typically works with on the EvoMill are long established leaders in the agri-food sector with many years of experience behind them. They all offer the latest innovations supplied by multi-disciplinary teams. “They are cost effective, highly reliable and have years of experience in these types of solutions and they can provide not only the structure, but all the interior bins required for the process and so cut down in the number of businesses customers have to deal with,” says Oertle. The grain storage silo providers that work with Bühler are all well-established names in the industry with solid track records and decades of experience of working across the world on many varied projects.



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Flexibility

One of the unique selling points built into the concept of the EvoMill is flexibility, allowing investors to choose their own project partners and so not just be limited to the verified companies. Bühler is happy to work with other partners to help create a more customized and bespoke EvoMill solution for customers. The caveat to working with customer-chosen partners is that speedy build and installation deadlines may be more difficult to achieve. Flexibility allows the EvoMill to be a starting point for an investment partner who can then customize solutions to meet their specific market demands. This also applies to the milling solutions that Bühler provides.

We believe in flexibility which is about the ability to start from the basic service and then to add value if the customer desires it,” explains Markus Pölzl, Bühler Head of Sales & Commercial Milling Solutions. “We want to take full advantage of EvoMill’s cost-effectiveness to provide the standard flow sheet where defined options are set. However, we are always open to do modifications and thus there is the ability to expand that base design over time.”

Looking at the response to the launch of the EvoMill, Pölzl believes that it is Bühler’s flexible approach to building on the EvoMill principle that is attracting the most interest. He also points to the less tangible benefits for EvoMill investors who work with Bühler in a potentially new market. “We have generations of experience in milling and understand our regional markets deeply, we also provide customer security. We are known for our quality and reliability and that we deliver what we promise, with each customer benefiting from our global Bühler support hubs that provide service and training.

All the benefits enjoyed by our Bühler businesses apply to the EvoMill Customer too.”

The concept of the EvoMill, as its name suggests, is EVOLving. The launch is targeted at wheat processing with a milling capacity of 300 tons of wheat daily. But Bühler is committed to providing long-term support to growing and developing markets, with plans to develop new project partners and expand beyond wheat milling and the current capacity levels. The EvoMill is set to become a feature of the future milling landscape.

Reference

<https://www.theguardian.com/global-development/2022/jan/20/by-2050-a-quarter-of-the-worlds-people-will-be-african-this-will-shape-our-future>