



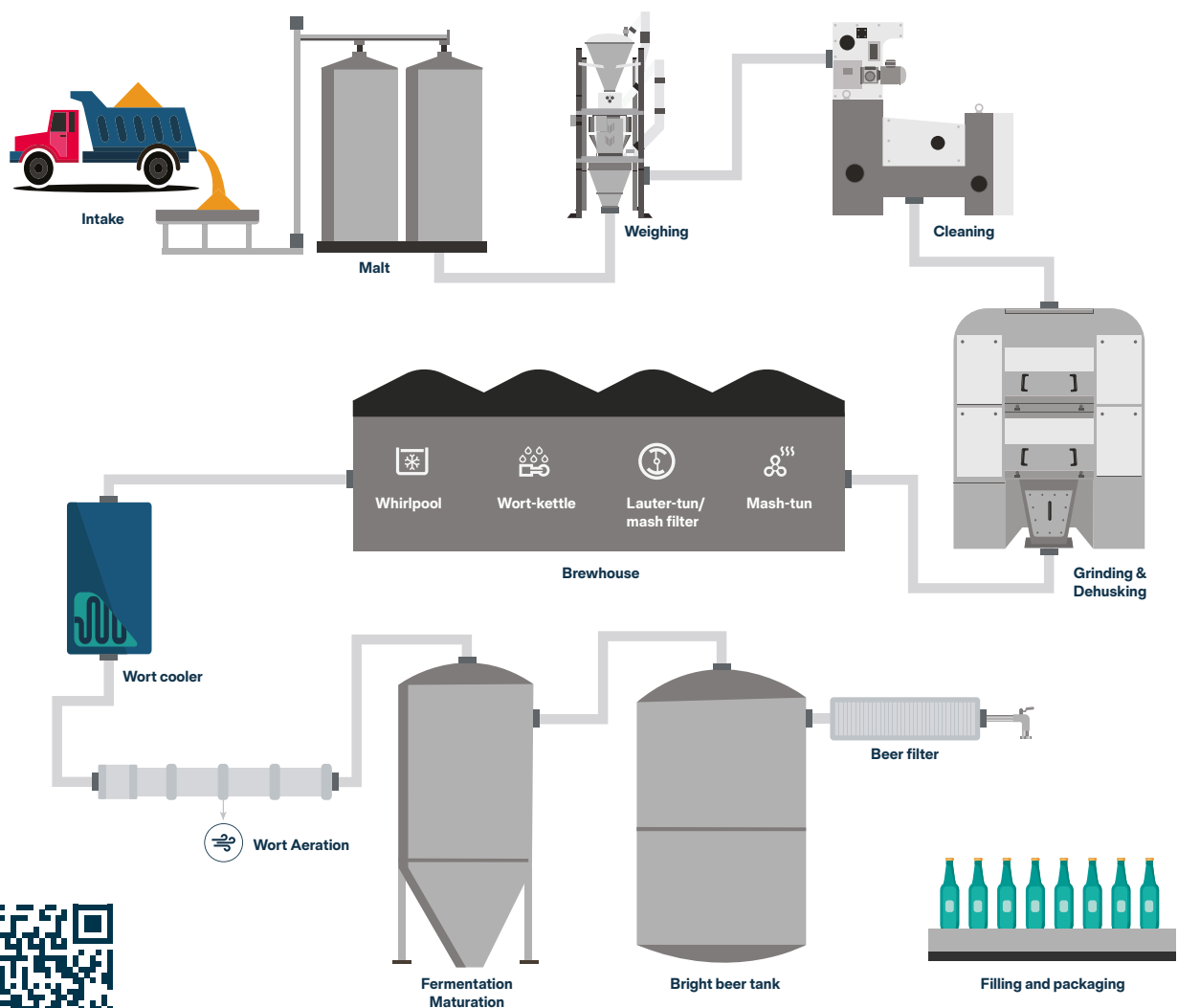
**Taking care of grain,
taking care of taste**
High-quality production
of beer and spirits



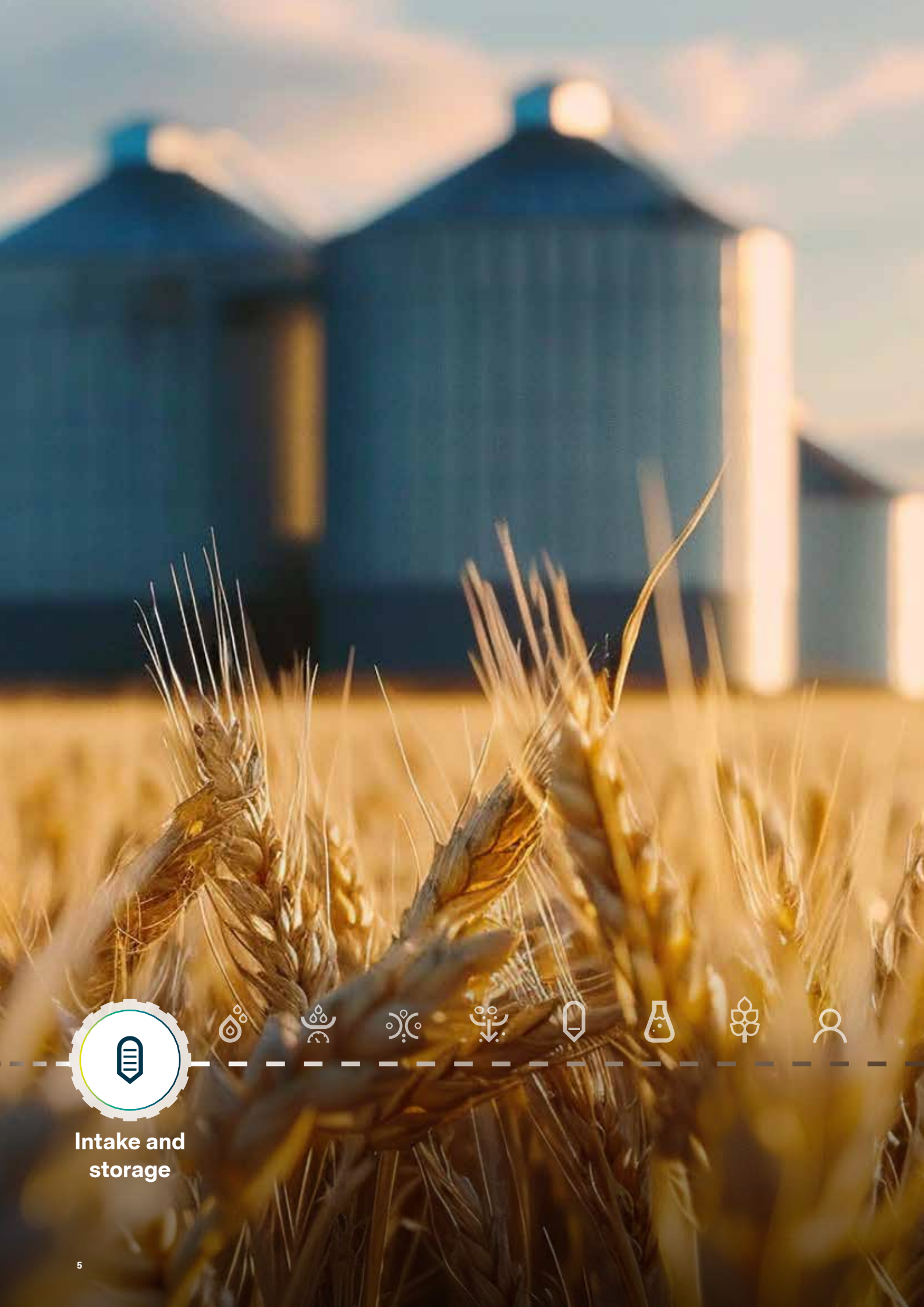
Careful processing of valuable raw materials

This is how good beer and spirit begins

Bühler offers the latest process technologies and solutions for beer and spirits production. The optimal treatment of grain and its processing to produce high-quality grist is the basis for an efficient brewing and distilling process. Additionally, Esau & Hueber, who is now part of the Bühler family are our experts in the cold block of brewing - from wort aeration and yeast management to fermentation, storage and CIP systems. Bühler is your partner for solutions from raw material to grist and can support you in optimizing the entire brewing process.



Scan here to
know more



**Intake and
storage**



Gentle transport and storage solutions

Perfect for any raw product

We carefully handle raw materials to preserve their quality, because gentle transport and proper storage are the first steps toward delivering the best flavor and taste in every brew. From intake at the receiving pit to transfer into the brewhouse, we maintain each ingredient in peak condition to support outstanding brewing results.



Intelligent intake and storage

Intake of raw materials with storage and discharge systems.
Reliable, economic storage in flexibly configurable silo systems.

Vertical and horizontal transport

Screw conveyors, elevators, and trough chain conveyors with wear and explosion protection, longer service life, and high operational reliability.



TUBO-the tubular push conveyor

Loose pushing elements for three-dimensional, horizontal and vertical transport at low speed with no need for additional explosion protection measures.



Cleaning

Reliable cleaning

Reduction of wear in the system

Grain and malt often contain contaminants like foreign seeds, stones, dirt, and other foreign bodies. With our machines, you get pure raw material; free of contamination.



Screening Machine GrainPlus LAGA

Optimal cleaning of the grain by separation of light and coarse fractions and separation of metallic parts with an optional magnet.

Destoner MTSD

Efficient separation and reliable removal of high-density impurities such as stones, metal, and glass pieces from a continuous product stream. Low energy consumption thanks to an integrated air-recycling system.



Combistoner MTCH

Excellent solution for an efficient separation of stones and glass while grading grains and mixed fraction.

Combicleaner Vitaris MTKC

Modular grain cleaning platform tailored to your specific needs. Our solution excels in separating large impurities, destoning, classifying functions, and removing light impurities to ensure optimal cleaning performance of your grains.



Optical sorting with SORTEX

Camera-based control and separation of defects and contaminants such as fusarium, burnt barley, insect parts, or black ergot.



Aspiration, weighing
and conditioning

Advanced solutions

Preparing the malt for a perfect grind

Ensure optimal process reliability and product quality with the highest safety standards in every step of your operation. Combined with conditioned dry grinding we offer solutions for maximum yield and high husk volume, increasing cost-effectiveness.



Filter technology with high safety standards

A broad portfolio of dedusting components with hygienic design and high separation performance while complying with emission values, standards, and guidelines.

Automatic hopper scale MSDM

Weighing granular and powdery products with the MSDM automatic hopper scale ensures optimal granular reliability and top accuracy.



Flow balancer MZAL

Gravimetric, constant product dosing for the manufacture of product mixtures, using measurement cells with high weighing precision.

Consistent conditioning with the Condimat BBFB

Homogeneous malt moistening to increase elasticity and volume of husks during grinding.



Consistent and precise liquid flow control with MOZG

Automatic, recipe-based water dosing with exact water quantities for optimal adjustment to the elasticity of the husks.



Grinding

Powerful roller mills

For maximum flexibility

Bühler supports breweries and distilleries with versatile 4-roller mills, engineered to achieve the perfect grist composition for faster lautering and consistently high beer quality.



Precision 4-roller grist mill Smartgrist LEFA

Crushing of malt and barley over two passages for craft breweries up to 40 hl per brew. High production flexibility and minimal downtime.

4-roller mill Minicompact SE MDZE

Combining safe and efficient crushing of malted or un-malted grains over two passages for craft and medium-sized breweries and distilleries up to 100 hl per brew.



4-roller grist mill Maltomat III MDBA

Gentle, optimal crushing of malted and un-malted grain over two passages. Adjustable installation size ranging from 4–16 t malt/h.

6-roller grist mill Maltomat III MDBA

Gentle, optimal crushing of malted and un-malted grains over three passages with sieve module to increase yield and reduce lautering times. Adjustable installation size ranging from 4–16 t malt/h.



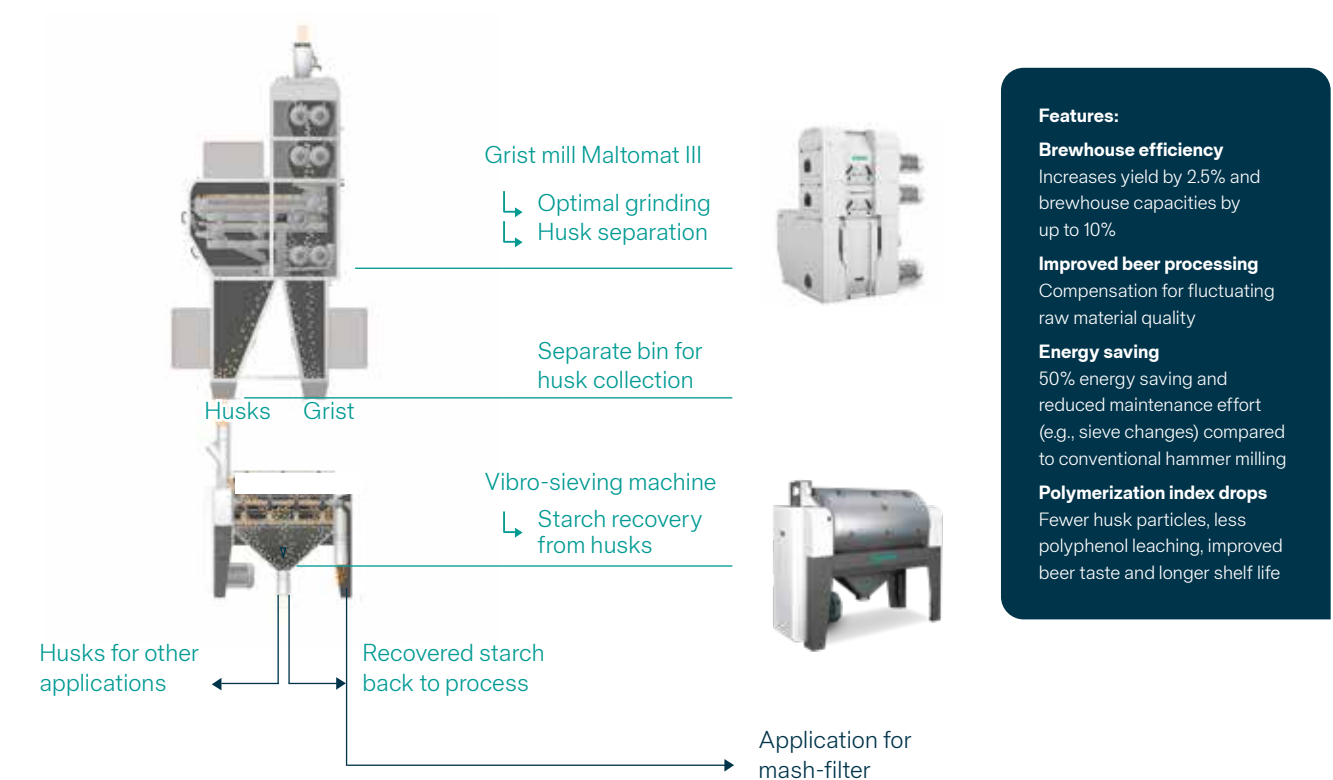


Dehusking

DDH-Husk separation

Boost your process, increase your beer quality

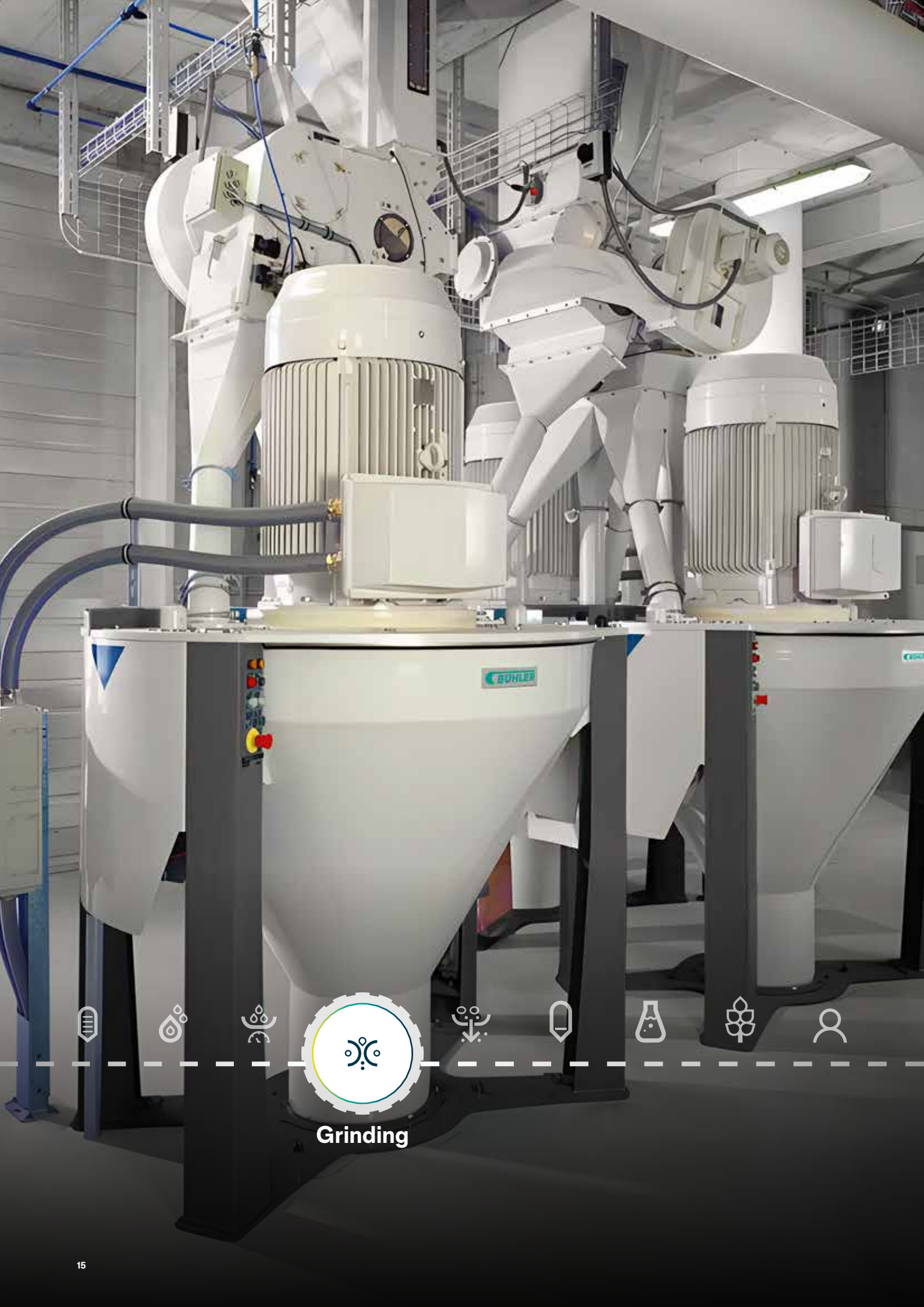
By replacing the hammer mill with a 6 roller mill in mash filter applications, this new system increases brewhouse capacities by up to 10%, compensates for different malt qualities, and allows for significant energy savings, less wear and reduced risk of explosions.



Husk with starch to be recovered



Cleaned husk



Grinding

Hammer milling

Safe, energy efficient, and high-performance grinding lines

For mash-filter systems and raw grain applications, Bühler offers horizontal and vertical hammer mills to achieve the homogeneous granulation your system needs.



Vertica Series AHZK

With no external aspiration required, our Vertica hammer mill can reduce energy consumption by up to 25%. Its small footprint as well as the change-over and hygiene benefits make it ideal for the feed, grain and oil milling, and biomass industries.

Granulex® 5 Series DFZX

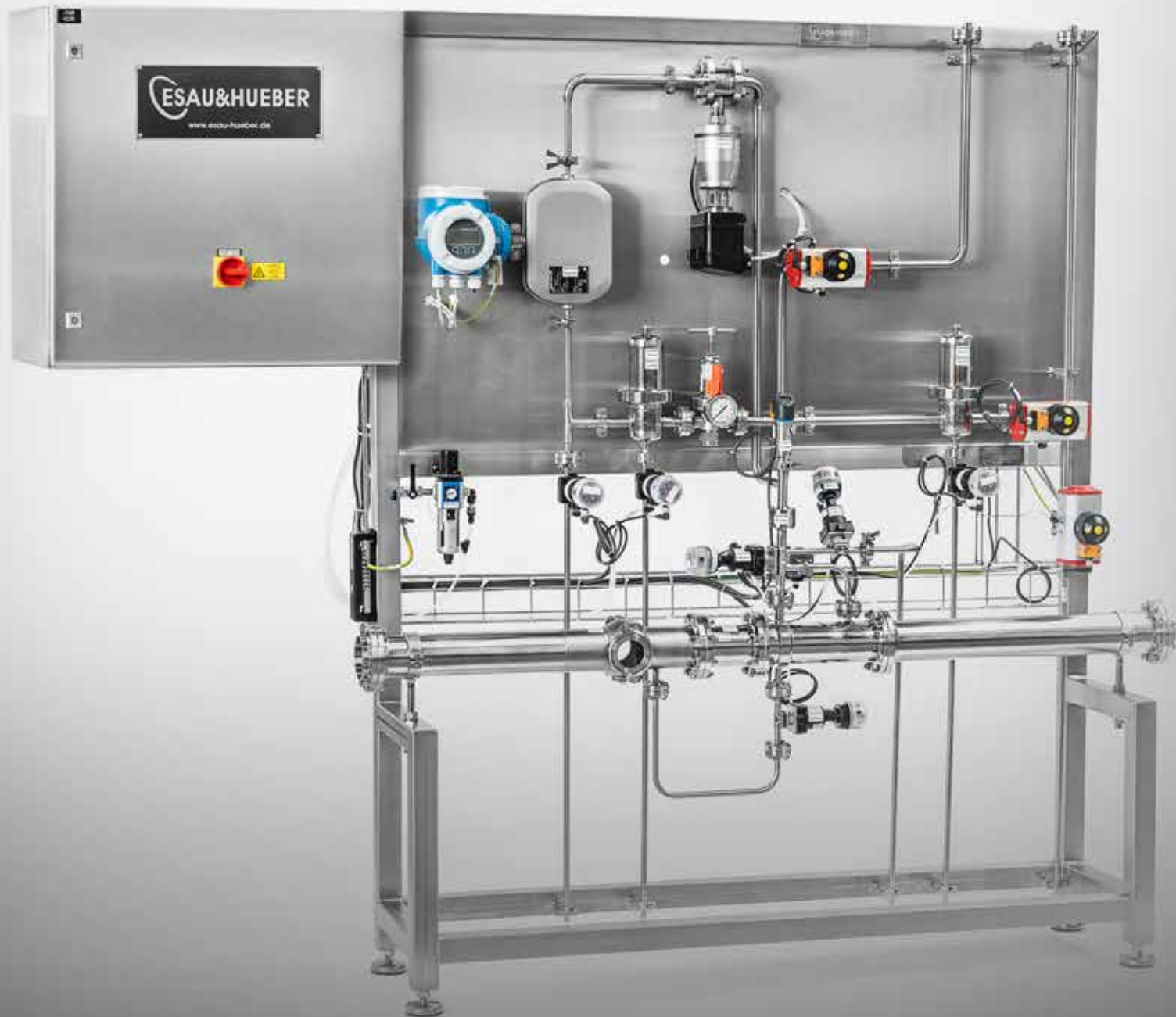
In addition to exceptional efficiency and ease of maintenance, our Granulex® 5 Series is characterized by its high throughputs. Distinguished by flexibility, each hammer mill is specifically configured according to its field of application.



Granulex® 3 Series AHZC

The Granulex® 3 Series hammer mill is a cost-efficient solution for size reduction in feed and food processing industries. It delivers excellent grinding quality, high production flexibility, and minimal downtime.





Esau &
Hueber

Brewing systems from Esau & Hueber

Brewers make the wort, yeast makes the beer

In September 2024, the Bühler Group acquired Esau & Hueber, a German company renowned for its hygienic process and fermentation technology in the beverage, food, pharmaceutical, and biotechnology sectors. This acquisition strengthens our malting, brewing, and sustainable protein businesses, expanding our expertise and global reach.



Wort aeration

Fermentation requires yeast in top condition and the correct aeration of wort and yeast before pitching. This can be achieved with products such as TURBO AIR and CRAFT AIR. Focus lies on cost optimized design, which offers a very effective solubility oxygen in the wort ranging from 10 to 1,600 hl/h.

Yeast management

Improvement of foam and stability of taste profile with different yeast strains is provided by CARLSBERG FLASK, MICRO PROP, and CRAFT PROP ranging from 25 l to 20 hl. CONTI PROP enables customized propagation with an external circulation loop.





Lab
equipment

Process monitoring and optimization

For reliable quality assurance

To support brewers and distillers in their daily work, Bühler offers a wide variety of options for monitoring the process from intake to the brewhouse, ensuring complete traceability.



Laboratory plansifter MLUA for reproducible grist analyses

Simple, fast granulation measurement of grist according to EBC and MEBAK requirements.

Universal laboratory mill DLFU for fast grinding

Precision grinding of grains and malt for all common laboratory analyses, recognized by EBC, MEBAK, and IOB.



Application Center Beilngries

Spread across more than 1,500 m², the center is home to the very latest technologies in the field of malting, brewing, and grain storage. This coupled with our vast process experience, means we can ensure successful scaling of your production. Our installation comprises a full grain handling and cleaning line including optical sorting, a malting line with up to 1.5 ton batch size, as well as grinding and sifting solutions for the perfect grist.



BÜHLER

PulsRoll®



**Special
processing**

Special grain processing

Husk removal of barley and malt

Our processing solution ensures the efficient removal of husks for malting and brewing applications. Designed for the pearling of both barley and malt, it delivers improved extract yield and optimum quality, meeting the demands of modern brewing with exceptional reliability.



Huller Pulsroll DRHG

Designed for the efficient removal of husk for different applications.

Applications

Pearling of barley

Husk removal before steeping, as the first step in the malting process, ensures faster water absorption and drying of the grain. This early intervention helps to shorten the overall malting process, increasing production throughput, and reducing energy costs.

Pearling of malt

Husk removal before grinding increases brewhouse capacity, compensates for fluctuating raw material quality, and lowers the polymerization index. This dehusking solution is suitable for both mash filters and lauter tun applications, thanks to the ability to retain the ideal amount of husks needed for the brewing process.



Special
processing

Special processing: Hops refinement

Precision solutions from crushing to surface treatment

For hops processors, vibro sieving machines ensure the extraction of alpha acids at below-zero temperatures. The mixer is fed coarse material and alpha acids in precision quantities to be processed into high-quality pellets in the next step. More tailored solutions are available for crushing of special grains like rice, corn, wheat sorghum, rye, and others. Surface treatment or sterilization increases product quality in distilleries by reducing mycotoxins, removing surface fusarium, or exposing the endosperm.



Vibro sieving machine MKZH for precision extraction

High sifting performance for the separation of lupulin in multiple sifting steps at below-zero temperatures. Perfect for the production of hop pellets type 45.

Pellet presses for best pellet quality

Top pellet quality for pellets of hops or spent grains.



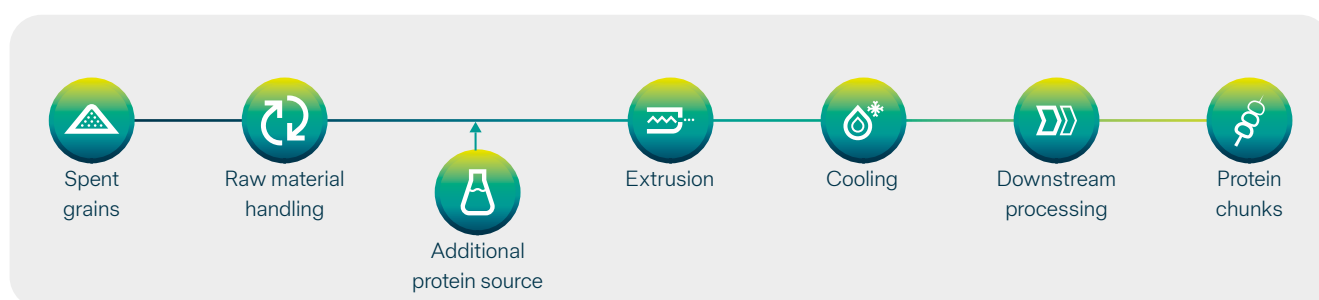


Special
processing

Upcycling of spent grains

New business opportunities with affordable plant-based products

By 2050 we need to produce more food with less land. The opportunity: upcycling spent grains for affordable plant-based products.



Upcycling spent grains for plant-based meat reduces the raw material costs by more than 20% and additionally increases the fiber content, making it tasty, healthy, and affordable product.

1. Spent grains

The side stream Brewers' spent grains are used directly from the brewing process, enabling immediate wet processing without energy-intensive drying and reducing freshwater use in extrusion.

2. Raw material handling

Before entering the extruder, the grains are wet milled to avoid clogging, then blended with other solid ingredients for extrusion.

3. Additional protein source

To reach 20–30% protein, pea or soy protein concentrates are added to the spent grains.

4. Extrusion

Ingredients undergo high-moisture extrusion—mixed with water under heat and pressure to create a fibrous, meat-like texture.

5. Cooling

Immediately after extrusion, the product is rapidly cooled to retain its fibrous structure.

6. Downstream processing

The base product is now formed and ready for further processing. The neutral base product can then be cut, seasoned, or marinated for various applications.

Wet textured products – high protein aeration with breaker plates.



Dry textured products – different shapes and cuts possible with simple parameter changes.





Services

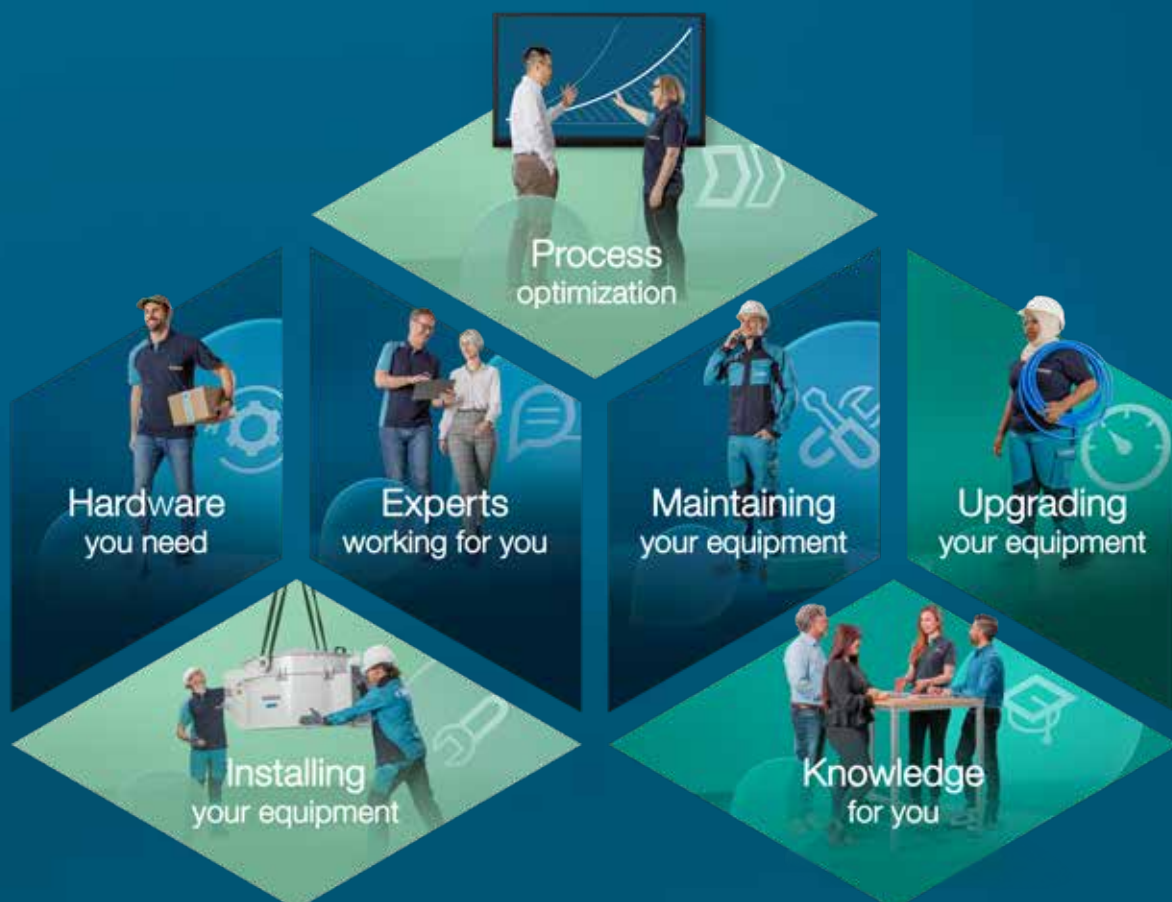
Plan ahead with **Bühler services**

Performance Assessment Workshop (PAW)

The Performance Assessment Workshop delivers optimal, always-on plant performance via expert, target-based assessment and full collaboration—identifying technical, technological, and operational improvements, followed by a customized report and a clear action plan to optimize production and unlock untapped resources.

Service Agreements (TotalCare)

TotalCare offers a wide range of choices at varying cost and service levels to help you get the best out of your machines.



Bühler GmbH

DE-92339 Beilngries
Germany

T +49 8461 701 0

F +49 8461 701 133

grain-quality-supply@buhlergroup.com
buhlergroup.com/mb

GQ Brochure Brewing EN 0525 Z&B 251878