### Pulverex<sup>™</sup> 5 Series Pulverizing Hammer Mill

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Pulverex® 5 Series



# Global markets request. **Energy efficient fine grinding.**



By combining elements of a hammer mill and pulverizer, the hybrid Pulverex<sup>™</sup> 5 series achieves a new level of performance, energy efficiency and operational savings not possible with traditional aquafeed grinding technology.



oats, pulses and whole wheat with a narrow granulation and low heat generation.

### Hammer Mill Pulverex<sup>™</sup> 5 Series. Advanced features in the all new portfolio.

The Pulverex<sup>™</sup> 5 Series pulverizing hammer mill enables a giant leap forward in very fine grinding with high uptime, narrow granulation spectrum, low heat generation and high energy efficiency.

### **Applications**

The Pulverex<sup>™</sup> 5 Series is primarily used for very fine grinding applications such as aquafeed, petfood, oat, pulse and whole wheat flour.

### Mode of operation

The feeder is mounted on top of the hammer mill to obtain continuous and even feeding of the raw material into the grinding chamber. The integrated separator and magnet removes impurities such as stones and metal parts. The mill offers sliding doors to access the lower screens. The upper portion of the mill contains impact plates that have incredibly long wear lifetime. For safety reasons, the doors are interlocked with the rotor, the mill cannot be started as long as the doors are opened.

### **Product features**

### New flexible platform

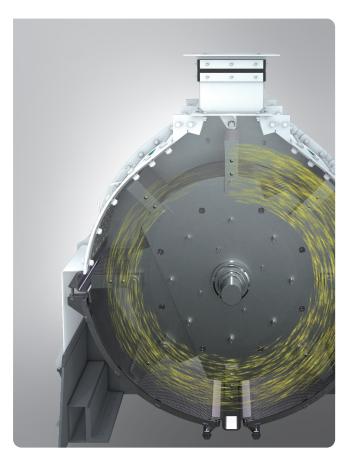
The Pulverex<sup>™</sup>5 Series can be configured to precisely meet granulation needs with reduced energy consumption through optimization of modular elements.

### A global fine grinding solution

The Pulverex<sup>™</sup> 5 is the first truly global portfolio for fine grinding. Offering machine specially designed for both 50 and 60 Hz frequencies as well as a range of machine sizes and motor power.

### **Operator-friendly design**

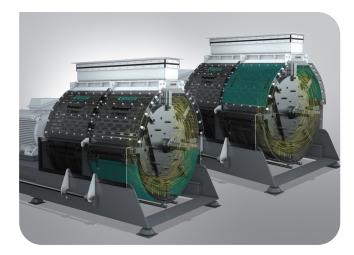
Features such as sliding doors, screen clamping system, and a smart hammer change process reduce maintenance efforts and downtime to an absolute minimum.



### **Customer benefits**

- Efficient fine grinding at high capacity
- Highly robust and with low wear and maintenance
- High production flexibility with low energy

### Pulverex<sup>™</sup> 5 Series Pulverizing Hammer Mill. Built to achieve best-in-class fine grinding performance.



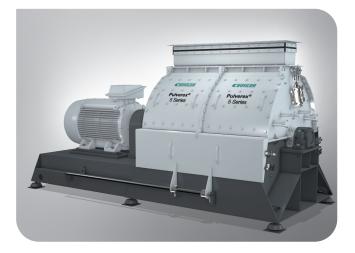
### Hybrid hammer mill and pulverizer

Combining the high capacity, robustness and ease of maintenance of a conventional hammer mill with the very fine grinding of a pulverizing brings new applications for your business. Using a combination of grinding elements further improves the grinding efficiency.

# Highly efficient grinding with low wear

Heavy duty design reduces vibration and improves robustness. The specially designed impact plates absorb most of the grinding activity, significantly improving screen wear life. The heavy, clustered hammers have longer wear life than traditional hammers. The robust staggered rotors improves grinding activity across the entire impact plate and screen area.





# High production flexibility and low energy consumption

The Pulverex<sup>™</sup> 5 can be used as both a single stage grinding solution or used in place of coarse or fine grinding positions. This flexibility allows you to unlock new recipes, new products and new revenue streams for your business.

### Pulverex<sup>™</sup> 5 Series Pulverizing Hammer Mill. **The new benchmark in fine grinding flexibility.**

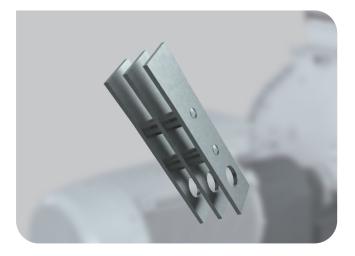


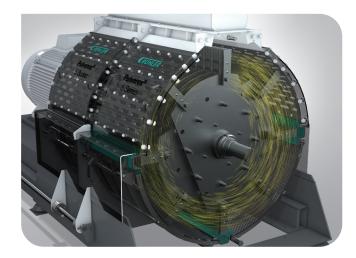
# Operators need quick access to their machine

The sliding doors allow easy access to the lower screens and other long-lifetime wear parts. With easy to handle screen sizes and robust screen clamping devices, screen changeovers are quick and simple.

# No time to lose when changing the hammer

Replacing wear parts in continuous production processes means a standstill of the production line. This time must be kept as short as possible. The Pulverex<sup>™</sup> 5 uses long lifetime hammers designed for fine grinding, meaning fewer hammer changes and longer lifetimes. In addition, the clustered hammers make hammer changes quick and simple.





## Regrind chambers improve grinding action across all raw materials

The three regrind chambers use air turbulance to improve grinding action and reduce raw material to be accellerated and circulate inside the grinding chamber. Improving the flexibility to the Pulverex<sup>™</sup> 5 to handle any raw material, including high fiber content.

Grinding is of central relevance in many process chains and has a direct impact on the final quality of products. For this purpose, we develop solutions for changing, demanding markets in our global innovation centers together with partners and customers.

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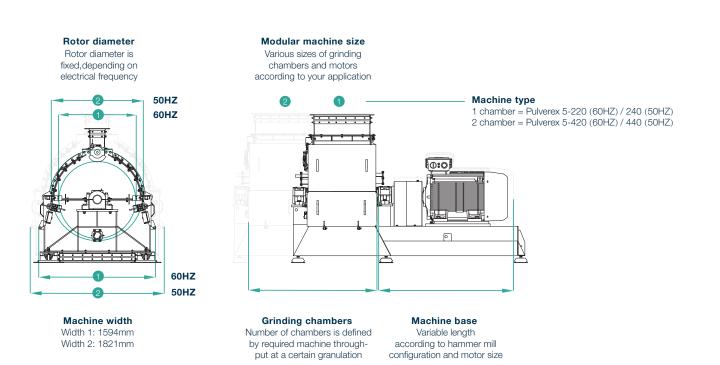
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### Pulverex<sup>™</sup> 5 Series Pulverizing Hammer Mill. **Flexible configuration options by modularity.**

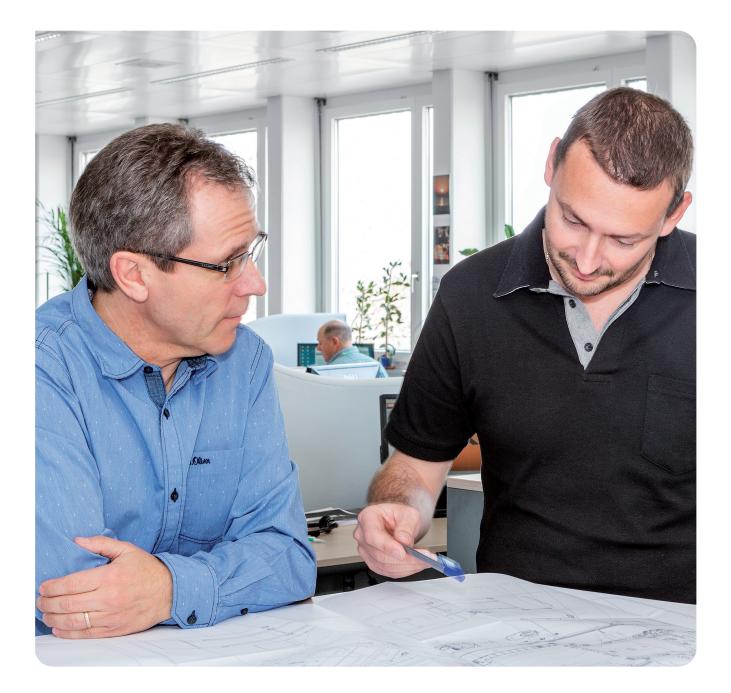


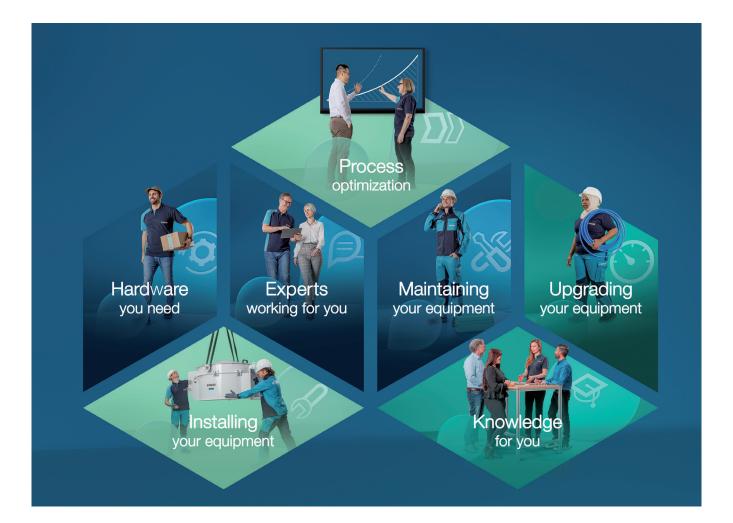
Pulverex <sup>™</sup> 5 Series Hammer Mill	AHBX 220	AHBX 420	AHBX 240	AHBX 440
Rotor Diameter (mm)	1168	1168	1422	1422
Screen Area (m²)	1.28	2.55	1.5	3
Motor size (kW)	100-200	160-315	100-220	200-350
Motor speed (rpm)	1800	1800	1500	1500
Throughput (t/h)*	4-15	8-30	4-15	8-30

\* Depending on raw material and required granulation, consult with technology documentation.

### Service for demanding customers. Available worldwide, reliable and fast.

Perfection is achieved when your production process is aligned with the best possible outcome. Enabled by an integrated approach that combines process expertise, equipment know-how and data, we at Bühler aim to get the most out of your assets.





#### Lab services

The laboratories offer a broad range of analyses and testing of food and technical materials in order to innovate processes and improve equipment for our customers.

#### Spare and wear parts

Highest standards of reliability apply to original Bühler spare and wear parts. They are perfectly adjusted and ensure performance and production safety.

#### Training

At Bühler training centers – or at any site worldwide – specially trained experts pass on their hands-on expertise and knowledge to customers' employees.

#### Revision

Bühler evaluates, over hauls, adjusts or renews customer installations, including Bühler and non-Bühler machines.

#### Consulting

Strategic, plant performance, or energy consulting are just some of the consulting services to improve product quality, production processes and energy efficiency.

#### Repairs

Dedicated to minimizing downtime in the event of an incident: Fast and reliable technical repair service via the Bühler eTicket or the Bühler Helpline – worldwide, 24/7.

#### Maintenance

Packages are adjusted to fit production cycles to prevent downtime, loss in production efficiency or product quality, ranging from individual services to complete outsourcing of maintenance.

#### Retrofits

With individual upgrades and conversion kits, time-worn Bühler machines will perform to current standards of technology and efficiency.

# Global expertise. Local presence. A lifetime of customer service.

Bühler customer service provides assistance not only to keep your machines, plants and facilities running at a high operational level, but also to prolong their service life, thus maximizing return on investment. You can test new products, shapes, recipes, textures, flavors, technologies and optimize your production process on fully equipped production lines and laboratories at our Application Centers world wide.



### Nutrition Application Center Changzhou & Wuxi, China

Test our new technologies and production processes and see how our latest technologies can help make your products. We use state-of-the-art technology – with the possibility to integrate your own machines.



### Grinding Application Center Uzwil, Switzerland

Our Grinding Application Center is a multi-purpose lab, where you can conduct tests on food and animal feed. In our Grinding Application Center, we have fully equipped production lines, where we run trials on a laboratory scale, but also use industrial-size equipment under real operating conditions.



### Grinding Application Center Minneapolis, USA

The Grinding Application Center (FAC) is the playground that exemplifies our vision for the Future of Food in Minneapolis. Developing new ways to transform peas, chickpeas, beans, corn, oats, special grains and many other sources of alternative proteins, into flours, flakes, snacks, pasta, breakfast cereals, meat analogs, and a myriad of extruded products together with you.



### Customer advantages.

- With specialist manufacturing and service locations all around the world, our support engineers and technicians are never far away, ready to help you resolve issues or take a proactive role in improving the overall performance of your facility.
- Join a seminar or let us train you in person. We run several workshops a year for theoretical and hands-on training. These can also be conducted at the Application Centers or at your production site.
- Work across multiple application centers to optimize all processes through the production line (e.g. grain technology and milling solutions) and develop end-to-end solutions.

### **Bühler AG**

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