Arrius® Integrated Grinding System. MRRA.

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Innovations for a better world.



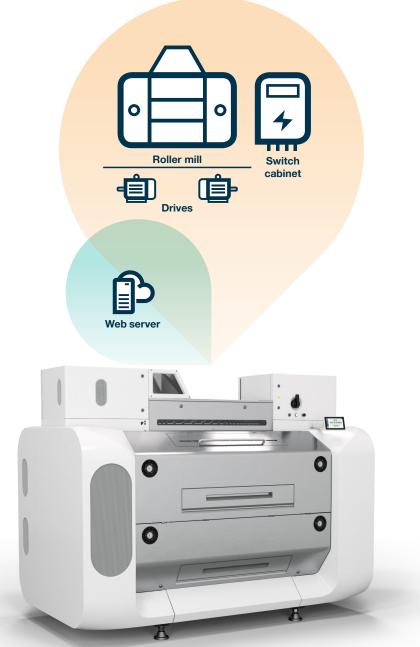
Arrius[®] - similar to a roller mill **yet entirely different.**

Arrius is the first fully integrated grinding system (IGS). It is applied for grinding wheat, durum, rye, barley, corn and spelt, where it sets the benchmark in terms of grinding performance. Arrius' plug-and-play design with integrated drive unit significantly reduces installation time and energy consumption.

Key Benefits

- Saves up to 10 % energy
- Reduces building investment costs and installation time
- Improves grinding performance
- Simplifies interaction on different devices





The Arrius IGS integrates drives, switch cabinet and web server.

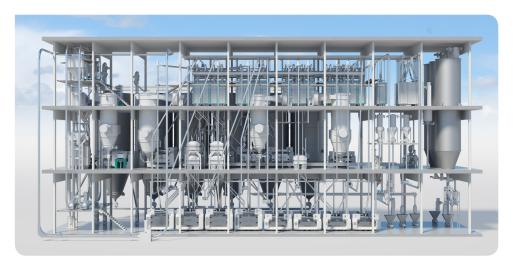
Fully integrated. For plug-and-play operation.

Integration enables fast installation

Thanks to the integrated control cabinet and drive system, Arrius can be completely wired and tested in the Bühler assembly plant. The mechanical and electrical installation is up to three times faster with the "plug-and-play" system, as compared to conventional roller mills. Simply connect three cables, the compressed air and the product in- and outlet - and Arrius is ready for operation.

Save building investment costs

Arrius' integrated drive and direct extraction system makes it possible to reduce an entire building floor in a greenfield project. The innovative design also permits flexible positioning of the grinding system within the plant.



Bühler's Mill E3 with Arrius



During the trials we've seen that energy consumption can be reduced by 8 - 10%.

Willi Erich Friessinger Manager, Friessinger Mühle

Grinding efficiency redefined.

Unmatched grinding stability

The heart of the Arrius is the newly developed roller pack. It is pre-stressed and backlash-free, which guarantees a stable grinding process and optimizes the energy transfer into the product. The starch damage of the flour can be increased by up to 10%, compared to conventional roller mills. The patented feeding module is fully self-regulating and automatically adjusts to product fluctuations. Together with the asymmetrical inlet with distribution screw, Arrius ensures a constant and even product distribution over the entire roller length.

Save up to 10% energy

The integrated drive, consisting of motor and gearbox, consumes up to 10% less energy. Energy is recovered mechanically with a specially developed gear.

A big step towards the Smart Mill

Arrius is equipped with multiple sensors that monitor and regulate the grinding system. The operating status of the feeding module, the roller pack, the motor and the gearbox are continuously monitored. Product fluctuations in the mill are corrected immediately by the control system to guarantee the best possible operation.

In order to achieve and maintain the best setting of the grinding gap, a novel grinding force measurement is available optionally. Double-sided sensors in the roller pack continuously measure the grinding force. This provides the operator with an additional measured value to achieve the best possible grinding result.

Best in class usability. **On various devices.**

The new control of Arrius is characterized by its adaptability and ease of use. An integrated web server allows monitoring and operation of the grinding system from different devices, including smart-phones, tablets and personal computers. Decide for yourself how you wish to interact with your Arrius.



Bühler remote app

The Bühler remote app enables accessing the machines on mobile devices through the mill's internal wireless network. You will be guided through the initial setup where it is possible to arrange the machines according to your plant layout.

By selecting an integrated grinding system, the app connects to the control system and the user interface is displayed. All functionalities of the Arrius control system are also available on the app.



Personal Computer



As safe as it gets for process and product.

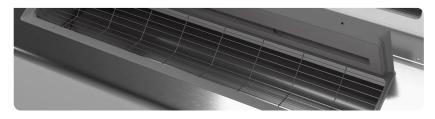
Hygienic design in and around the machine

The new feeding module is designed for complete product discharge and is fully accessible by opening the inlet door. A greatly simplified design of the grinding chamber and improved aspiration reduces product deposits. The machine stand with hygienic leveling feet allows easy cleaning under the machine, which further increases food safety. A scraper bar for corrugated rollers replaces the brush, thus avoiding contamination by bristles. It goes without saying that all surfaces of the Arrius that come into contact with the product are made of food grade materials.



A new standard in terms of safety.

With an electronically lockable cover and hand guard protection, Arrius sets a new benchmark in terms of operational safety. The latest sensor technology including roll temperature measurement continuously monitor the machine status to safeguard high uptimes.



Customize your grinding system. Choose from a wide range of sizes and options.

The Arrius integrated grinding system is offered in two variants - a four roller version and an eight roller version. Roller lengths range from 1000mm to 1500mm. Various options such as inlet monitoring, roller and bearing temperature monitoring, and grinding force measurement are available.





MRRA 4		MRRA 4-1000/250	MRRA 4-1250/250	MRRA 4-1500/250	MRRA 8		MRRA 8-1000/250	MRRA 8-1250/250	MRRA 8-1500/250
Length	mm	2678	2928	3178	Length	mm	2678	2928	3178
Width	mm	1676	1676	1676	Width	mm	1676	1676	1676
Height	mm	1736	1736	1736	Height	mm	2276	2276	2276
Weight	kg	5000	5300	5600	Weight	kg	9600	10100	10600

Bühler AG

Arrius en 0920 201100 Z&B

CH-9240 Uzwil Switzerland

T +41 71 955 11 11

buhlergroup.com

