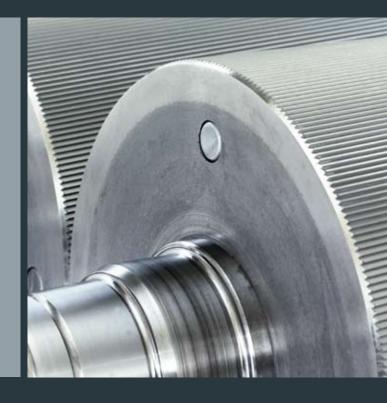
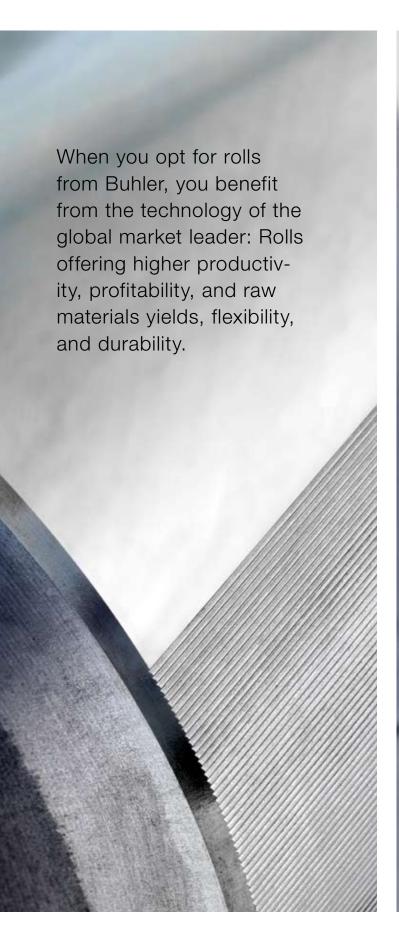
Efficient, reliable, and rugged.
Roll technology from Buhler.



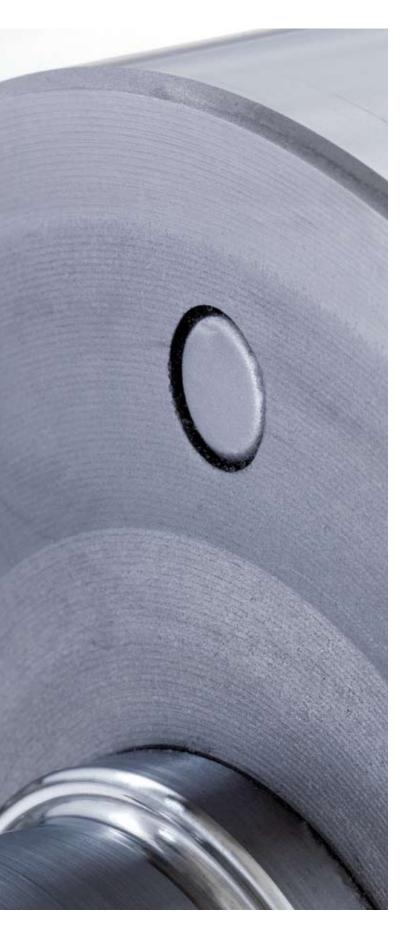




Whether smooth or corrugated – Buhler rolls are synonymous with top quality and a long service life.



Two different alloys with a mixing ratio based on decades of experience allow the perfect balance to be achieved between hardness and roughness.



# Top-class rolls from the market leader.

### The suitable solution for every process

The heart of any Buhler high-capacity mill is its customized rolls which optimally process each individual grain so that products of top quality can be made with high efficiency and reliability. In this, Buhler always sets the focus on the customer's specific requirements for productivity, top product safety, short downtimes, and low maintenance costs.

### Looking at the whole and the detail

Rolls based on the Buhler quality standard are manufactured by a special process. In order to ensure the high productivity of the overall plant, Buhler machines should therefore always be operated equipped with the suitably specified rolls. Even minor deviations in the surface properties or quality of the metal alloys applied may affect the profitability of the entire process.

#### Not only for Buhler mills

The benefits of Buhler rolls are also available to users operating mills from other manufacturers. Their efficiency will rise, their downtimes will decrease, and thanks to Buhler's worldwide Service Stations customers will always have a competent contact available to them when they need support.









# Gentle processing of valuable raw materials

Buhler offers its customers top-grade rolls for processing soft wheat, durum wheat, corn/maize, rye, oats, barley, millet/sorghum, buckwheat, malt, oilseeds, pellets, and other products.



Narrow process parameters ensure a consistently high quality as early as in the casting process – as here during tapping of the molten steel.



Buhler cambers the rolls as required by customers. In the subsequent camber test, the rolls are checked to one thousandth of a millimeter.

Genuine Buhler rolls convince through their grinding stability, low maintenance requirement, and high production reliability. The decades of know-how accumulated by Buhler and the matured manufacturing methods applied ensure a consistently high quality of each individual roll.

# Proven technology that pays off for users:

- The rolls are centrifugally cast, giving them a high wear and pressure resistance.
- The computer-controlled centrifugal casting system provides high reproducibility and 100% retraceability.
- The uniform surface hardness of the rolls ensures the best possible processing of the product.
- The customized camber of 0.001 to 0.45 mm compensates for pressure and thermal influences and thus ensures homogeneous grinding.
- Thanks to dynamic balancing, no asymmetric forces will act upon the roll during operation, preventing operating trouble and increased wear.
- Buhler rolls offer an optimal combination of low wear, high throughput, and excellent grinding characteristics.



The corrugating machine cuts highly accurate corrugations into the rolls. The differences in the number, geometry, twist, and position of the corrugations produce over 10,000 variants – carefully matched to the specific production process.



The finished smooth or corrugated rolls with diameters of 250 to 800 mm offer the optimal solution for every process.

# Rolls based on Buhler quality standard. A science in itself.

From casting to finished product, all rolls undergo a multitude of accurately monitored operations that can be reproduced at all times and are subjected throughout the process to a number of different quality checks. This ensures that the high demands that Buhler places on its rolls will be permanently satisfied. In addition, all production facilities of Buhler have been inspected and certified to the ISO 9001:2000 standard – a quality label that creates confidence and reflects Buhler's natural commitment to unrivaled quality, safety, and reliability.

## High-precision work at the micron scale

Buhler rolls are manufactured from two components by the centrifugal casting process. An outer hard chill casting alloy is optimally combined with a softer, tough gray casting alloy. The high centrifugal forces acting upon the molten alloys during centrifugal casting produce a high material density and homogeneity, which is crucial for achieving high wear and pressure resistance. The rolls are then cambered with high precision in order to ensure a consistently high roll pressure across their entire length.

In order to ensure the best possible product flow, all smooth rolls are sand-blasted. For corrugated rolls with a diameter of 250 and 300 mm that are subjected to particularly high stressing, Buhler offers its TITAN rolls. They are characterized by a further developed mixing ratio between the hard and the soft iron components in the chilled iron alloy. This greatly increases the service life of the rolls compared to FERAN standard rolls.

### Quality through experience

Another marked characteristic of Buhler rolls is the special geometry of their corrugations, which are matched to the required grinding flow chart. Buhler has the rolls, corrugation profiles, and system settings matched to each individual process step, thanks to its 150-year experience in this field.

# Maximum throughput and minimum downtimes. Perfect service worldwide.



Thanks to individualized consulting services, each and every roll and the associated services are tailored exactly to the customers' needs.



Trained personnel are essential in order to achieve high productivity. Buhler experts show you – among other things – how to change and recondition rolls efficiently.

Blunt roll corrugations and worn smooth rolls will cease to produce a uniformly high processing quality, directly affecting the profitability of the entire plant. Timely service prevents high costs as a result of repairs, exchanges, and the associated downtimes.

Thanks to its global presence in over 140 countries and its Service Stations specializing in roll servicing, Buhler will be available to you whenever you require assistance – for roll reconditioning as well as maintenance and repairs on plant and equipment. Buhler offers you an all-inclusive service pack where the Buhler Customer Service organi-

zation continuously checks the condition of your rolls and initiates the maintenance whenever the need arises. And all this is tailored to the needs of the specific production plant in question.

#### Specialized training

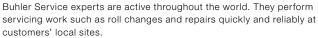
Buhler is a partner to its customers. It not only offers technical assistance such as overhauls, but also supports its customers by offering them extensive training opportunities either at their local sites or in Buhler Training Centers across the world. Customers thereby build in-house expertise and enhance their competitiveness.

#### Service tailored to customers' needs

Specially trained Customer Service staff will analyze your existing needs and then set up an individual service schedule so as to minimize downtimes during maintenance.

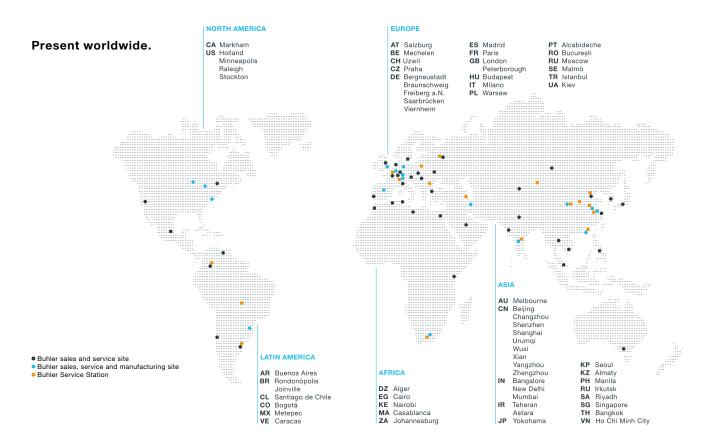
# Buhler is present worldwide to perform expert on-site servicing.







A large number of Buhler Service Stations and sites with a Customer Service organization offer expert roll reconditioning close to customers' sites.



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