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CRUSHING ROLLER MILL WITH INDIVIDUAL DRIVE

Continuously Variable Transmission Ratios

The crushing roller mill with individual drive ensures an even more specific adjustment in crushing of individual components for feed production. Special requirements due to the age of the animals or individual demands on the feedstuff are specifically taken into account by the KAHL crushing roller mill. The machine features an individual drive for each roller with speed control and energy recovery. Single-stage or two-stage crushing can be performed.

Advantages of the Individual Drive:

- → Significantly lower energy consumption (kWh/t) compared to hammer mills
- → No aspiration required, thus no moisture loss in the product
- → Automatic gap adjustment and various differential speeds between the rollers possible
- → Wide variation of granulations with individual drive, the right particle size for every animal age
- → More benefits for animal health, animal welfare and higher growth efficiency

↑ Oats

↑ Pig feed

↑ Maize

Technical Data

Roller diameter mm	400
Roller length mm	1500 / 2000
Throughput t / h (depending on input and target particle size)	20 – 80
Crushing	1-stage / 2-stage
Connected load kW	30 – 75

Directly to the virtual showroom:
Scan the QR code now.

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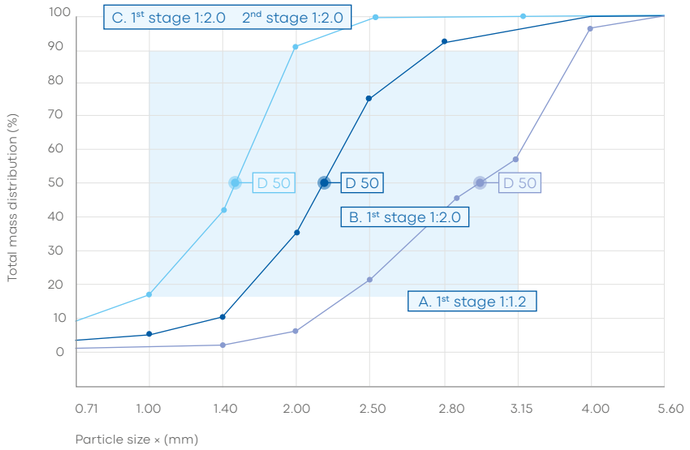
THE CRUSHING ROLLER MILL IN COMPOUND FEED PRODUCTION

Results with Wheat



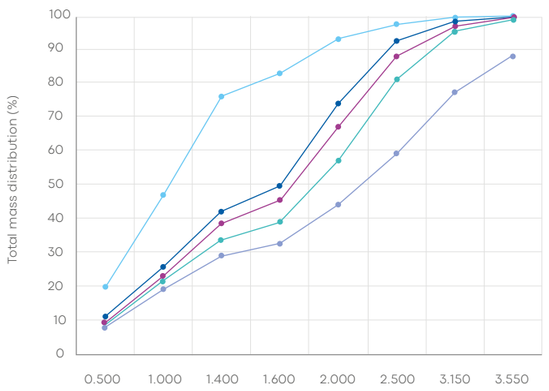
The product's structure can be varied considerably by using different roller speeds.

A: Low differential speed
→ low fines content D50 = 2.9 mm

B: Increase in differential speed
→ significant fineness reduction
D50 = 2.2 mm

C: Significantly higher fines content with 2-stage roller mill → D50 = 1.5 mm

Particle Size



Besides the different roller speeds, there are other additional optimisation options thanks to the automatic gap adjustments.

On the left, it is shown how the particle-size distribution curves of the raw material can be influenced by varying the gap distance and the differential speed of the rollers.

The combination of gap distance and individual drive offers enormous possibilities for adapting the formulae to the specific needs of your customers.

- 0.6 mm gap, 1:1.5 Q3 (%)
- 0.8 mm gap, 1:1.5 Q3 (%)
- 1.0 mm gap, 1:1.5 Q3 (%)
- 0.6 mm gap, 1:1 Q3 (%)
- 0.6 mm gap, 1:2 Q3 (%)

AK 003 EN 2021

↑ Product: Wheat

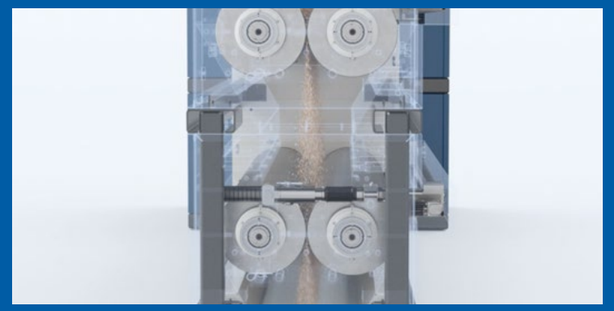
- Frequency-controlled feed roller
- The special roller geometry ensures uniform feed of the roller pair
- Smooth operation, low power requirement
- A magnet on the opposite side removes metals

↑ The roller pair

- Grinding gap easily adjustable by hand
- Optional: automatic remote adjustment with gap measurement
- Due to the individual drive with frequency converter it is possible to operate the roller pair “sharp to sharp” or “dull to dull” – depending on the required final product

↑ Material: Special steel

- Material: Special steel, chilled cast iron
- Surface-hardened 51 – 58 HRC (different qualities possible)
- Can be re-fluted up to 5 times, depending on the fluting and wear of the rollers
- Various corrugations possible



↑ Modular design

- Modular design allows us to offer the right solution for individual needs
- Optional: Roller exchange cassettes for shorter downtimes
- 2-stage design increases flexibility in granulation
- Suitable for individual components and mixed products