

SERIES 600



SUMMARY OF ADVANTAGES:

- › Against hammer mills, with fine milling for swines you can save about 30 %, and with coarse milling for poultry even up to 70 % of energy.
- › The feed value of grind from roller mills enhances feed digestibility and production efficiency.
- › The crimped grain in the milking cows feed ration improves efficiency by 0.5 litre per head and a day.

PRINCIPLE

The roller mills and crumblers diminish grain by shear when going through the milling gap between two corrugated rollers with edges, turning in different speed. The slower roller turns even faster than the rollers used in roller crimpers that process the feed by the influence of pressure, rising between two nearly smooth rollers, turning in the same circumferential speed. The ROmiLL S600 machine is used for grinding the grain to groats. Its modification SG600 is used as the pellet crumbler and SR600 is used as the rape seed crumbler. The crimper ROmiLL M600 processes the grain by application of pressure to the cohesive flake structure.

DETERMINATION

The machines are mainly used for processing of most feed mixtures. They are especially suitable not only for grain crops – wheat, barley, oats, maize –, but also for other feed crops, e.g. legume, oil-bearing crops, oil cakes etc. They are not suitable for processing of stalky crops with long fibres. The products processed are used for feeding of farm animals of all kinds and categories, mainly with addition of feed additives.

ANOTHER USE

The machines can also be used as mills, crushers, crimpers etc. for diminishing of other biological materials as well as inorganic raw materials in a wide variety of non-food applications.

MAIN USERS

The 600 Series products of ROmiLL model range are the second most powerful from the point of view of processing capacity. They are mainly installed in larger primary agricultural production companies, but also in industrial feed mills. They are used by cooperatives or business companies including agriculture supply and purchase companies. They are determined for continuous and shift operation. Together with mixers, scales, conveyors, feeders they are installed in standardized or individually projected middle-capacity feed mills. It is necessary to realize that the machine efficiency limits the efficiency of the whole plant, and if the production is directly connected to the animal breeding, it influences the time, necessary for the everyday feed preparation.

OPERATION PARAMETERS	GRINDER S600	CRIMPER M600	PELLET CRUMBLER SG600	RAPE CRUMBLER SR600
electromotor (3x400V, 50 Hz)	18.5 kW	11 kW	11 kW	15 kW
production capacity	3-5 t/h	3-4 t/h	7-9 t/h	5 t/h
	fine product			
	coarse product			
weight	993 kg	998 kg	926 kg	956 kg

COMPARISON WITH HAMMER MILLS

From the impact type of grinding, the roller type differs on principle. It uses much lower power supply and allows processing by crimping as well. Another advantage of roller mills is that they produce groats with homogenous texture, which is optimal for animal feeding. Thanks to the possibility to adjust the particle size exactly, reaching the rated graininess of all types of feed mixtures is enabled.



Feeding hopper

The feeding hopper capacity corresponds to that of the machine. The hopper is equipped with a mechanism that regulates the amount of the processed raw material. If the rollers separate, it works as a fast lock. The accessory hopper lid closes the accumulated amount of material inside the hopper. The ingoing route is fitted to the flange of the short pipe mouth, which is unified with the lid. The feeding hopper and the lid can be delivered individually.

Massive case

The basic condition for the faultless operation is a firm and accurate manufacturing of the diminishing section with two horizontal operating rollers. The correct operation is ensured by a field-proven gears and a reliable mechanism, which changes the position of one roller and so the size of the milling gap, and assures the safety recoil.

Hardened rollers

The long life of the rollers is reached by using a special quality steel with surface finished by combination of several hardening procedures. It allows to process uncleaned feed materials, containing hard mineral impurities. The abrasive wear is much lower than at the high quality cast irons, cast or hardened steel, used by world producers.

Protection of the rollers against damage

The top characteristics of the roller hardness cannot be reached without rising the surface fragility. That is why it is necessary to protect the rollers against metal and mineral impurities of larger sizes, not detained by a grid in the feeding hopper. For this case, all the ROmiLL mills are equipped by unique mechanisms for the instant recoil of the adjustable roller, which allows the hard particle to fall through without damage to the surface of rollers. Simultaneously with the roller shift the material feeding from the hopper to the rollers stops. This prevents the unprocessed material to fall into the grind.

Parallelity of axes of both rollers

While design of most world producers comes out from the independent fit of both bearings of the movable roller, that is unable to keep up the permanent parallelity of both rollers and

so the permanent size of the grinding gap along its whole length, the movable roller in ROmiLL machines makes a firm framework which protects the roller axis against displacement from the exactly determined position.

Reliable transmissions

The torque from the electromotor to the driving roller shaft is provided by belts. The movable roller is driven from the driving roller by corrugated rolls, one of which is made of a special durable material. This gearing is proven by long term operations, needs no lubrication and is distinguished by low noise.

Various installation options

The machine is positioned directly under the bin outlet, or a conveyer is led to the hopper. The diminishing unit is usually set on the stands of metal profiles. It is fitted to the dump with subordinated conveyor or to the floor with product lead to the lower plant floor or directly to the horizontal mixer. Placing in silent blocks eliminates vibrations and noise. Electrical wiring comes from a switchboard. The electroinstallation panel is delivered as the extra accessories.

Simple and maintenanceless operation

All the control elements are accessible from one side of the machine. In operation it is only necessary to adjust the fineness of the product together with the amount of raw material coming from the hopper. A few maintenance operations are carried out altogether when changing the worn out rollers.

Advantages of the two-high processing

The energy is saved when milling coarse in the first machine and then finishing in the second machine, which has finer corrugated rollers and narrower milling gap adjusted. This pre-processing by the roller mill is effective also when a hammer mill follows in the final stage.

ADVANTAGES OF THE ROMILL CONCEPT

- > Reliability and long service life
- > Outstanding rate of utility value and price

