



## SKIOLD DISC MILL



SKIOLD MAKES THE DIFFERENCE!



### **SKIOLD DISC MILL**

Optimal feed structure for all animal groups

Exceptional durability on wearing parts

Low power consumption

Capacity up to 12 t/h

Quiet running



## Technology & Advantages

### New technology, new advantages

The SKIOLD disc mill is the result of several years of product development and testing. The object was to develop an all-round mill for grinding of grain and crops; and that with low power consumption, quiet running and minimum dust levels. At the same time the mill should allow automatic adjusting of the grinding degree during operation according to the required fineness and structure of the specific feed mixtures for different animal groups or species. Also it was the object to develop a compact mill that fits in easily, even in existing plants. The grinding takes place between two discs consisting of a number of segments produced in tungsten carbide. This is the same material as is used for producing cutting tools in the engineering industry. Thus, quality- and product-wise, the SKIOLD disc mill meets all the demands made by today's largest and most professional animal producers as well as commercial feed millers.

### High capacity, low power consumption

The mill is available in three sizes: The SK2500 with a 5.5 kW or a 7.5 kW electric motor; the SK5000 with a 15, 22 or 30 kW electric motor and the SK10T with a 55 or 75 kW electric motor. When grinding wheat, the capacity varies from 1,000 to 12,000 kg/h, depending on mill size and grinding degree, giving a typical power consumption of only 5 kWh per ground tonne. The motor is

mounted directly on the running disc, securing the entire motor power to be used in the grinding process. The capacity varies according to the different raw materials and the required grinding degree.

### Exceptional durability on wearing parts

The grinding takes place in two steps. First the raw materials are coarsely ground between two inlet rings before the final grinding between the grinding discs. The discs consist of a number of segments with the hardness of 1,700 HV, whereas the hardness of the hammers in a traditional mill is just 600 HV after hardening. When grinding normal, cleaned grain, the durability of one set of discs in the smallest mill will be up to 5,000 tonnes, 10,000 tonnes in the medium size mill and up to 20,000 tonnes in the largest model which considerably increases service intervals of the mill.

### Low dust and noise level

The mill operates without air ventilation, which eliminates dust emission. Augers, elevators or other types of mechanical conveyors are used for conveying to and from the mill which of course SKIOLD is fully equipped to supply. The noise level of the mill is only 80 dB(A) which will be perceived by users as quiet running when compared to a traditional hammer mill having a noise level between 85 - 90 dB(A).





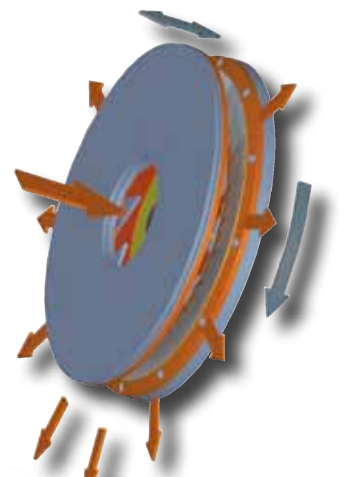
# Feed Structure & Build-in

## Feed structure

The ideal feed structure is not the same for all species of animals and groups within the same species just as the grinding process is different for different types of raw materials. Therefore it is important to be able to change the grinding degree during operation and between the different feed mixtures in order to get the optimal structure of the prepared feed. The distance between the two grinding discs determines the grinding degree and the disc mill is constructed with stepless change of the distance between the discs. The distance can be changed manually by means of a handle on the front of the disc mill or automatically via an actuator receiving settings from the control system of the plant.

## Building-in and use

By virtue of its compact appearance the disc mill fits in easily in both new and existing plants. Typically, augers are used for conveying raw materials to the disc mill. Using frequency control for the augers, the optimal utilization of the mill capacity is secured. An auger or other conveyors can be mounted directly at the mill outlet for conveying the ground material to mixer or silo(s). If the raw materials contain many impurities, it is recommended that the raw materials are cleaned prior to grinding using a screen cleaner, as the impurities increase the wear of the mill. Again SKIOLD is fully equipped to supply effective screen cleaners which separate both sand and larger impurities from the raw materials. As standard the mill inlet is equipped with a strong pipe magnet. The disc mill is ideal for all common types of plants, e.g. as pre-grinder of raw materials and as grinding unit in continuous or batch based feed mills. The mill has been tested and found suitable for grinding of many different raw materials including pellets with diameters up to 12 mm.





# FlexMix - Mill/Mix computer For All Your future Demands!

FlexMix is SKIOLD's answer to the demands of modern farm feed production to control of production.

It has been of great importance to construct a flexible and handy computer in order to make the daily operation easier. Extensions and new demands can easily be met, and a good survey of the production as well as easy access to necessary data for economical control. Optimal Control

FlexMix PC is the optimal tool for control of large and complex plants.

The system is based on a standard computer that via a connected PC with graphic software gives maximum view and is extremely handy.

The plant can be updated and operated via a modem which a. o. assures efficient service and correction of faults directly from the SKIOLD service department.

## Mill Control in the Centre

The mill is the largest consumer of energy in the plant, and so it is important to control the mill in the best possible way, because of energy consumption as well as achievement of optimal structure in the feed.

A combination of FlexMix with the SKIOLD disc mill offers an optimal utilization of its resources.

FlexMix can be programmed to vary the milling degree of the various raw materials in the various mixtures so that the correct structure for the various animal groups is obtained. This guarantees the best feed utilization and health.

With the SKIOLD FlexMix the modern farmer can meet with the future demands of increased flexibility and optimal control of his feed production.