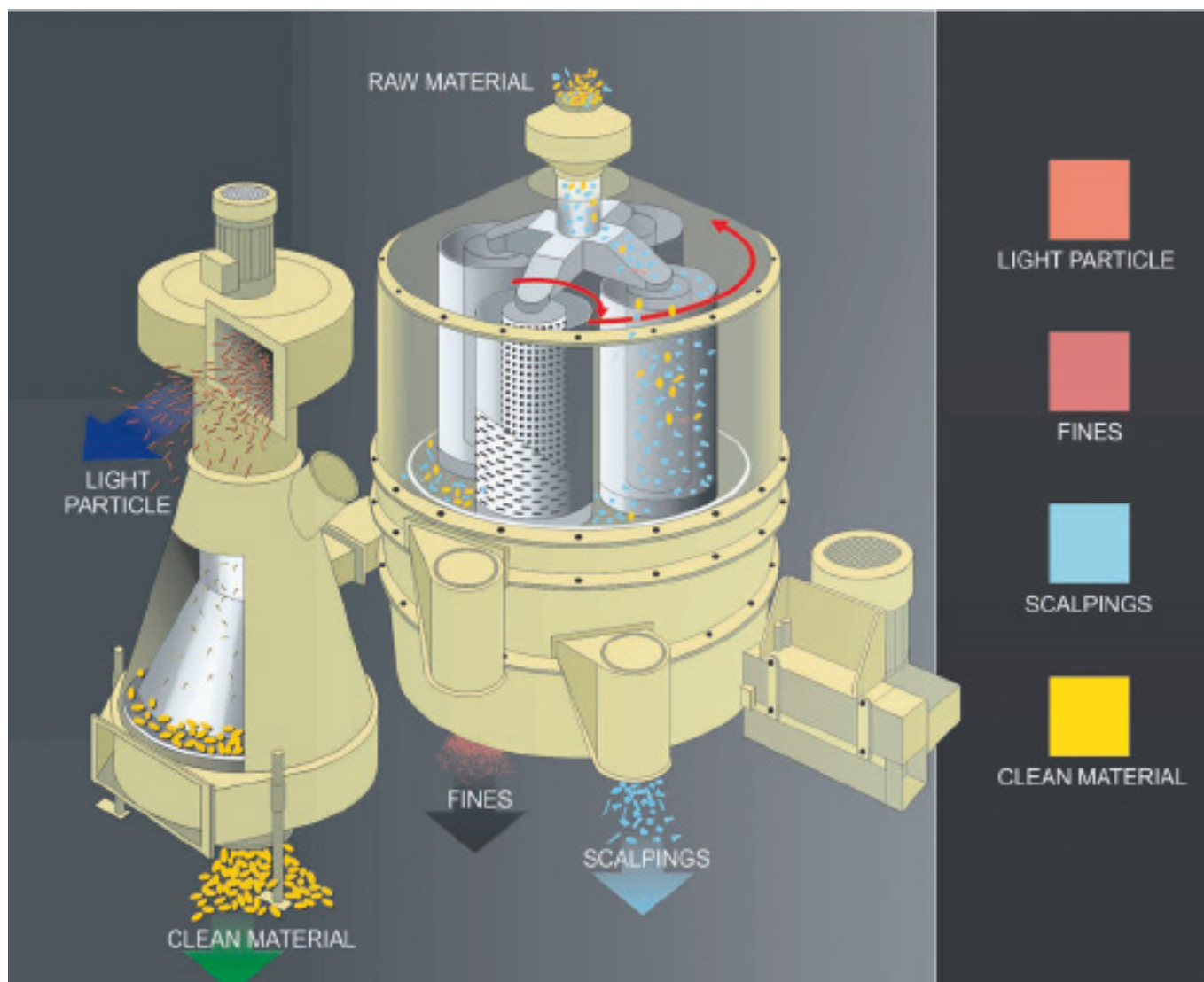


SECTOR SUPPLIERS

Grain cleaning

There is an increasing interest in cleaning grain for feed, and this has an impact at SKIOLD, manufacturer of the Sigma cleaner. The Sigma cleaner is still relatively unknown in relation to cleaning of grain on farms, but has been in use for cleaning of seeds for many years.



The Sigma cleaner is the unit to the right, and the Pulco the one to the left. Source: SKIOLD.

The cleaning principle of the Sigma differs from that of other cleaners

Grain cleaning: The screens in the Sigma cleaner are vertical and rotate around their own axis, and at the same time around the central axis of the machine. This makes the cleaning qualities of the Sigma cleaner stand out compared to those of common drum or screen cleaners.

By Morten Thomsen
mot@landbrugsmedierne.dk
Tel. +45 33 39 47 51

Mads Rauff Bjerre's Sigma cleaner consists of four vertical drums mounted on a rotating wagon. In addition to the rotating movement of

the machine, each of the four drums also rotates around its own axis. That is why SKIOLD refers to the Sigma cleaner as a planet drum cleaner, as the four drums rotate around their own axis and around a central axis in the same way as a planet around a sun.

Depending on the material to be cleaned, screens with different hole sizes can be mounted in the four drums, allowing grain and impurities to pass.

Grain is fed to the operating cleaner via a distributor over

the four drums. At the same time, both the machine and the four drums rotate.

The centrifugal force and the special 'double rotation' makes the grains rub against each other and against the screens.

Kurt Henriksen, sales consultant at SKIOLD, explains: »Cleaning of the grain is accomplished by use of the centrifugal force, which flings the grains towards the screens, while at the same time the grains rub against each other«. The grains are subsequently collected in a channel at the bottom of the cleaner. The grains are then conveyed to the Pulco unit, which is a kind of advanced aspirator. In addition to a strong airflow, there is a power driven wing, which distributes the grains evenly into the airflow.

Light particles escape through the top of the Pulco unit, while the heavier grains fall towards the bottom and from there to a bin.

Flexible cleaner

The Sigma cleaner is not a new invention. It was originally developed by the grain cleaner manufacturer

Sigma grain cleaner

- The principle was originally developed and manufactured by Damas, which has been acquired by SKIOLD.
- Suitable for pre-cleaning of many raw materials.
- Now there is also an interest in the Sigma for cleaning of grain for feed.

Damas more than 40 years ago. Some years ago, Damas became part of the SKIOLD Group, and today the Sigma is an important part of SKIOLD's product range.

It is used for pre-cleaning of many types of raw materials.

»In continuation of the increased interest in grain cleaning, we now also see an increased interest from the pig producers«, Kurt Henriksen says.

The Sigma cleaner is available with different sizes of screens, as is the case with other types of grain cleaners, but for most pig producers changing of screens will not be necessary.

»The capacity of 80 tons per hour of this model is fully sufficient to clean the grain before storing in flat storage or silo«, Kurt Henriksen adds.

The number of units that are brought into rotation in the Sigma cleaner makes the energy consumption higher compared to drum and screen cleaners. A standard Sigma cleaner is driven by an 18.5 kW motor, plus 8 kW for the Pulco aspirator.

»It is of course necessary to ensure sufficient power in the feed barn«, he remarks.



Toxins: A task for the entire branch

Kurt Henriksen, SKIOLD, would like to be able to give a more accurate answer when the pig producers ask about the gain from cleaning their feed grain. So far, however, he finds it difficult – the same as Mads Rauff Bjerre – to quantify the advantages of improved grain cleaning.

»It is difficult to put an exact number on the advantages of better cleaning of the grain«, Kurt Henriksen says.

The experience from other pig producers, who have started cleaning the grain more efficiently, is the exact same as Mads Rauff Bjerre's, that the production becomes more stable and at a generally higher level.

Other significant advantages are less wearing and fewer breakdowns on the milling-mixing unit.

»There is no doubt that the reduction of toxins improves the health of the sow and thereby also the production«, he says.

But according to Kurt Henriksen, it would be of great benefit if the branch as a whole could work together to gain more knowledge about the effect of the toxins.

»It would be an obvious case for the organization Seges Pig Production. All pig producers could benefit from more knowledge about toxins«, Kurt Henriksen points out.

Brushes mounted between the four vertical drums keep the screens clean. Photo: SKIOLD.

