



Maximise the Value of Your Crop

**Solutions for Pre-Cleaning,
Grading, and Sorting
for Agri-Businesses**

Why Cleaning Is So Important

THE EFFECTS OF IMPURITIES

After threshing, grains are **contaminated** by impurities: Dirt, small pebbles, plant and insect waste, seed cases, weed seeds, etc.

These impurities **hinder drying and safe storage** operations and make them longer and more costly. Indeed, it would be not only costly but also superfluous to waste time, effort, and money on drying the impurities along with the grain.

These impurities **lower the quality** of the product and are also a focal point for potential infestation during storage.

Cleaning may be accompanied by a **sorting of the products** according to quality, which is indispensable before storage, marketing, or further processing of the products.



Removal of foreign objects and impurities will reduce wear of your other equipment such as conveying and milling components

With separation based on kernel size, be it malting barley, seed, or organic farming, your yield will increase

A truly clean crop will open up new sales opportunities to a wider range of consumers



How Can Cleaning Impact Your Business?



CASH CROP FARMING

Seed cleaning will help alleviate the problems with grain infected by fungicides or other unwanted remains sitting on the kernel surface.



GRAIN PROCESSING

Secure the maximum output of your grain depending on its further use, i.e. seed or feed, by cleaning the grain.



ORGANIC FARMING

Take your organic production to the next level with Kongskilde Industries' solutions for efficient handling of crops and livestock to increase your outcome.



LIVESTOCK

Secure the maximum commodity output from your livestock by choosing a crop handling solution.

Dual Cleaner **KDC PLUS**

The Kongskilde dual cleaner, KDC PLUS, is a combined screen and aspiration cleaner with capacities of up to 80 t/h. Ideal for the pre-cleaning of maize, barley, wheat, rye, peas and beans as well as for grading of malting barley and seed.

The inner screen serves as scalping, removing all large particles, and the total outer screen area is available for smalls removal. This is the only machine available with fully adjustable pitch.

With the vacuum you actually get 100% aspiration. It conveys/blows its own screenings up to 15 meters.



KDC 8000 **PLUS**



Bottom of inlet made of heavy stainless steel for weather resistance.



Easy access for collection of grain samples after cleaning.



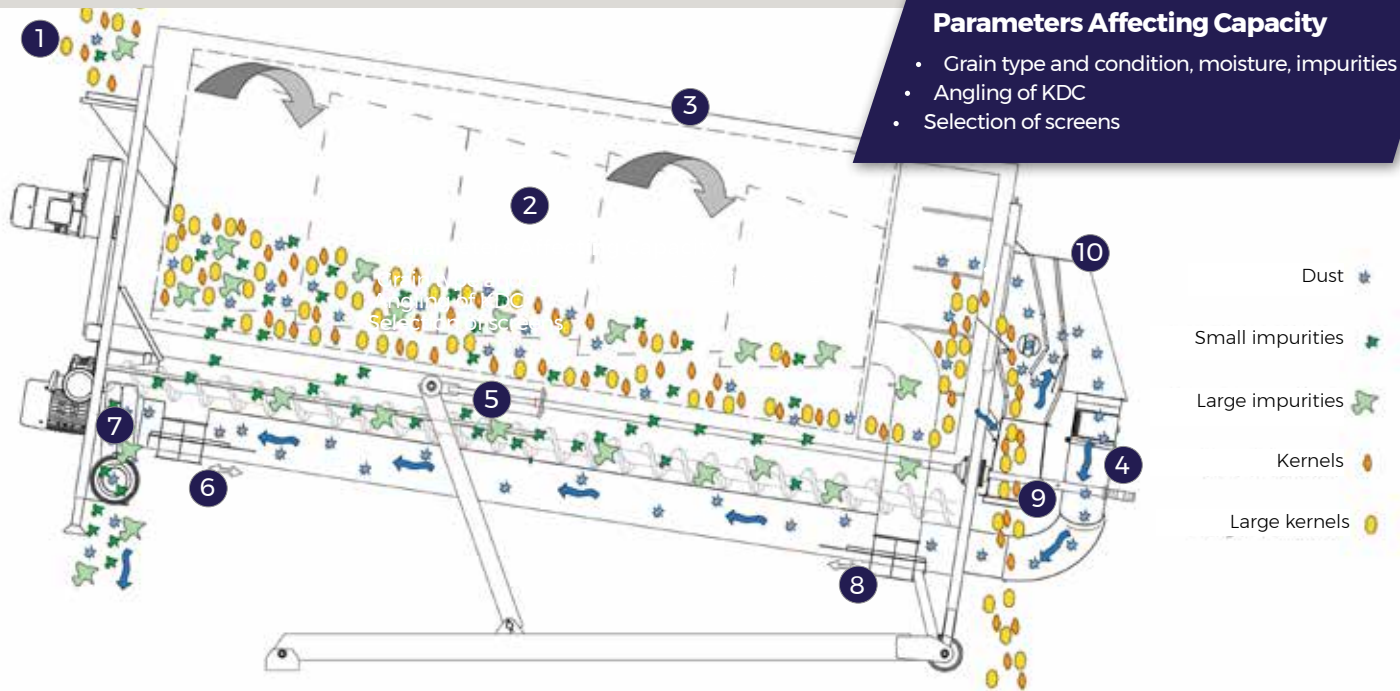
Windows on the side panel and aspirator unit can easily be cleaned or replaced.

KDC is a cleaner with a dual cleaning function: By screens and by aspirator. The screens sort the grain by means of size, and the aspirator unit removes light impurities and dust by means of air.

FEATURES & BENEFITS

- Effective size separation of grain kernels through two layers of screens.
- Quick-release system for easy and fast replacement of screens.
- Large selection of screens for all common crops.
- Cleaning by aspiration after size screening for maximum removal of dust.
- Limited stress and wear of cleaner with rotative parts only, so no vibration is transmitted.
- All components exposed to the ambient are made in galvanized steel suited for outdoor installations.
- Wear spots are made in stainless steel.
- The standard panel only requires power supply.
- Dampers on the torque arm for gear drive reduce stress load on screen drum.
- A vacuum inside the drum compartment limits the amount of dust.
- Easy adjustment of screen drum angle by use of crank handle (standard on KDC 8000 PLUS, optional for KDC 4000 PLUS).
- Easy access for collection of grain samples after cleaning.
- Easy inspection during operation through multiple windows.

How A KDC Works



Example of pre-cleaning for pig feed

- 1 Grain inlet
- 2 Inner screen, exchangeable
- 3 Outer screen, exchangeable
- 4 Air bleed for air flow control in aspirator
- 5 Auger for conveying of screenings
- 6 Closable outer screen outlet for screenings/small kernels
- 7 Blower for aspirator
- 8 Closable outlet from inner screen
- 9 Clean grain outlet
- 10 Aspirator chamber for dust separation



Example of cleaning for seed & sorting by kernel size



KDC 8000 **PLUS**



It is easy to open the side panels which saves time and increases efficiency when changing screens.



Screenings are conveyed through pipes up to 15 m away.



The cleaning brushes are mounted on a spring loaded arm for efficient even load on the outer screens.



A quick-release system makes it easy and fast to change screens and make ready for the next crop.

ACCESSORIES

- Wide assortment of standard screens for all common crops.
- Cleaning brushes clean the outer screens.
- Rain cover for motors.
- OK 200 pipe system and cyclone, connected to the outlet of the aspirator blower for conveying of impurities.
- Wheel set for short distance transport of KDC 4000/8000 PLUS between different locations.

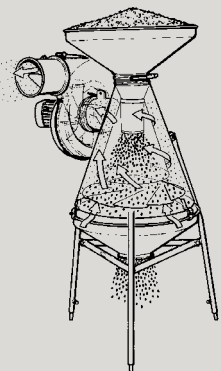
SCREENS

Kongskilde Industries offers a large assortment of screens for size separation of grain kernels. See Datasheet "Screen Selection for KDC" for more details.

| Technical Specifications | KDC 4000 PLUS | KDC 8000 PLUS |
|---|--------------------------|------------------------|
| Max. capacity pre-cleaning, t/h* | 40 | 80 |
| App. capacity seed cleaning, t/h* | 3 - 17 | 6 - 34 |
| App. capacity malting barley, t/h* | 3 - 17 | 6 - 34 |
| Screen drum drive motor size kW (HP) | 1.5 (2.0) | 2.2 (3.0) |
| Screen drum drive motor rpm | 21,9 | 23 |
| Blower for aspirator motor size kW (HP) | 4.0 (5.5) | 4 (5.5) |
| Blower for aspirator motor, RPM | 3,000 | 3,000 |
| Auger drive motor size, kW (HP) | 0.75 (1.0) | 1.1 (1.5) |
| Auger drive, RPM | 450 | 240 |
| Control panel power supply (50 Hz) | 3 x 400 V / Rated 13.4 A | 3 x 400 V / Rated 15 A |
| Inlet for crop | OK 200 | FK 250 |
| Outlet for cleaned crop | OK 200 | FK 250 |
| Conveying pipes for impurities | OK 200 | OK 200 |
| Pipe outlet from auger | OK 160 | OK 200 |
| Screen area, Inner drum, m ² | 4,1 | 7,5 |
| Screen area, Outer drum, m ² | 6,5 | 10 |
| Weight, machine without screens, kg | 890 | 1,425 |

*Grain 700 kg/m³. Capacity affected by grain type and condition, moisture, impurities, angling of KDC, selection of screens

Kongskilde Aspirators KF



KF 12 mode of operation.



KF 12.



FRL 10 blower can be used to vacuum off dust, eg. on the discharge of grain driers or dust extraction spigot on elevators, augers, etc.



Cyclone for discharge of dust.

Aspirators are suited for removal of dust and light impurities from grain.

The construction of the pre-cleaner provides many options for integration in a grain plant.

We recommend that the grain cleaner is installed in such a way that it can clean the grain both before filling it into storage and after emptying the storage.

BENEFITS

- Modular system with great flexibility for built-in solutions.
- Easy access to regulation of the cleaning function. The regulation can be installed anywhere in the pipeline.





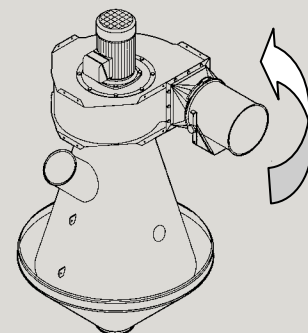
KF 40 mode of operation.



KF 40 fitted with support legs.



Air regulation for adjustment of the suction power of the aspirator.



Blower outlet can be turned in any direction.

HOW AN ASPIRATOR WORKS

The grain passes through an upwards moving air stream in the aspirator. The air stream picks up dust and light impurities, and gravity allows the grain to fall down into the bottom outlet of the aspirator.

The dust and light impurities follow the air stream through the blower and further on into a pipeline to the desired discharge point.

| Technical Specifications | KF 12 | KF 20 | KF 40 | KF 60 |
|---|----------------------------|-----------|-----------|------------|
| Max. capacity (barley) t/h | 12 | 20 | 40 | 60 |
| Motor size blower motor kW (HP) | 0.75 (1,0) | 1.5 (2.0) | 5.5 (7.5) | 7.5 (10) |
| Motor RPM | 2,900 | | | |
| Motor type | Flange motor Norm motor B5 | | | |
| Weight (incl. motor) kg | 75 | 105 | 250 | 260 |
| Conveying pipes for waste | OK 160 | OK 200 | FK 300 | 2 x FK 300 |
| Max. recommended conveying length for waste (m) | 25 | 15 | 15 | 15 |



Solutions for Agri-Businesses since 1949

We are pioneers within the field of conveying blowers for different solutions. Our systems include conveying, cleaning and separation of grain and raw materials - it's quick, efficient, and environment friendly.

In Kongskilde, our dedicated and experienced staff ensure that all products and solutions are in a league of their

own both in regards to development, test, production and installation. The reliable and scalable solutions are designed in close cooperation with our customers, who always have the last say. Dialogue is the first step towards the best Kongskilde solution; you tell us your company needs - now and in the future.



WEIGHING



DRYING AND STORAGE



CLEANING AND SEPARATION



CONVEYING MECHANICALLY



CONVEYING PNEUMATICALLY

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