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# Cleaning

### KDC 4000 Combi-Cleaner





Screens are easy fitted by means of quick release system. No tools required.



Screen drum with 2 layers of screens. The Inner screen works as scalping screen retaining oversize impurities. The outer screen is a sand screen where small impurities are sorted from the prime product.

Panel for start/stop of motors in the right order, so blocking of the KDC 4000 is avoided.



A handle placed on the outside cabinet makes it easy to adjust the aspirator function without any tools.

KDC 4000 is a dual cleaner, with screen and aspirator function. The screens sort by means of size, in the aspirator unit light impurities and dust are removed by means of air.

- Only rotation parts no vibration transmitted, which reduces stress and wear on the components.
- All components exposed to the ambient made in galvanized steel suitable for outdoor installations.
- Wear spots made of stainless steel.
- Screens for size separation of grain kernels.
- Standard panel, only power supply required.

Drum drive	Unit	50 Hz	60 Hz NA
Screen drum	RPM	21.9	21.9
Motor size	kW	1.5	1.5 (2 hk)
Blower for aspirator			
Blower	RPM	2,900	3,500
Motor size	kW	4	4 (5 hk)
Auger drive			
Motor size	kW	0.75	0.75 (1 hk)
Motor	RPM	1,380	1,740
Panel			
Power supply		3x400V, 50 Hz 13,4A	60 Hz
Complete machine			
Weight without screens	kg	890	890







The first bottom outlet can be opened, if you want to collect small kernels together with the screenings from the outer screen.



KDC 4000 model with outlet hoppers, without auger. Ideal for cleaning crops with large impurities such as maize.



Cleaning brush ensures optimum cleaning af all times by keeping the outer screen clean.



KDC 4000 can be fitted on a trailer for easy transport from place to place.

#### Accessories:

- Rain cover for gear motor on drum shaft and panel
- Cleaning brush for outer screens. To be used when cleaning small seeds and size separation to avoid blocking the screens.
- OK 200 pipes and cyclone for conveying the screenings for discharge up to 15m distance from the KDC4000.
- Wide assortment of standard screens for all common crops.



### This is how a KDC 4000 Works



#### Mode of Operation

- 1. Inlet for unclean crop.
- Inner screen separates the oversize impurities by retaining them. The conical shape of the screen drum slows down the grain, ensuring a good separation of the crop.
- The outer screen sorts out the small impurities from the desired product, and also small kernels.
- The screenings from both screen layers are collected in the bottom trough, where the auger conveys the screenings towards the inlet end of the KDC4000.
- 5. The screenings gathered in the bottom trough are guided into the injector of the blower pipe line for the waste.





Crop

screens are used:

Aspects influencing the capacity

The capacity of the KCD4000 cleaner

depends on, how it is installed and what

Higher inclination of the adjustable

legs makes the grain pass faster over

Large impurities

# 6. The blower sucks air and light impurities from the aspiration chamber.

- 7. Waste can be conveyed for discharge at a desired place.
- 8. The scoop elevating section lifts the grain into the aspiration chamber.
- In the aspiration chamber light impurities and dust are removed from the grain by means of air.
- 10. Outlet for the prime clean product (OK 200).
- 11. Air regulation for the suction power in the aspiration chamber.
- 12. Outlet for screenings from the inner drum (large impurities)
- Small kernels from the outer screen can be collected via this outlet (together with the screenings).



Small impurities



the screens. Giving a higher capacity, but reducing the cleaner's efficiency.

- Inner screens with "small" holes provide a better cleaning at a lower capacity.
- Capacity guidelines 40 t/h for pre-cleaning, 5-7 t/h sorting jobs.



Impurities separated by screens and aspirator discharged into the trash blow line. Impurities separated by screens and aspirator discharged separately.



Impurities separated by screens and aspirator discharged separately.

## Screen selection for KDC 4000 combi-cleaner

#### Inner screen

Perforation (mm)		Сгор									
		Barley	Malting barley (sep.)	Wheat	Rye	Oats	Rape seed	Peas/ Soya Beans	Maize	Sun flower	
1	2	3									
ø3.5	ø3.5	ø2.75						0			
ø4.3	ø4.3	ø3.5						0			
ø5.2	ø5.2	ø4.3						$\bigcirc$			
ø7.4	ø7.4	ø5.2			0						
ø9	ø9	ø7.4	0	0	0	0			0		0
ø11	ø11	ø9	0	0	$\bigcirc$	0	0		0	0	0
ø15	ø15	ø11	$\bigcirc$			$\bigcirc$	0			0	$\bigcirc$
ø17	ø17	ø15								$\bigcirc$	
ø7 ø8											

#### Choice of screens

Choice of screens has a high impact on both cleaning capacity and efficiency.

#### Inner screens

- The screens chosen determines the capacity for pre-cleaning.
- Small holes provide a better separation of large impurities.
- Large holes give a higher capacity.
- Max. cleaning (reduced capacity).
- Average cleaning (medium capacity).
- Pre-cleaning (high capacity).

#### Outer screen

	Сгор								
Perforation (mm)	Barley	Malting barley (sep.)	Wheat	Rye	Oats	Rape seed	Peas/ Soya Beans	Maize	Sun flower
1.0 x 16.5 1.8 x 20 2.0 x 16.5	00		00			$\bigcirc$			
2.25 x 16.5 2.5 x 16.5 2.65 x 16.5 4.0 x 16.5		000					00		0
ø2.0 ø3.5 ø4.5	0		0	0	0		00		
ø7.0 ø7.4 ø9.0									
ø2.75 ø5.2 ø6.0	0		0					00	
4,3 x 16,5 4,5 x16,5							$\bigcirc \bigcirc \bigcirc$		

#### Outer screens

• For separation, the capacity is determined by the size of the holes of the outer screens.

#### **Pre-cleaning**

- Crop with high content of small and thin grains.
- Standard crop.

#### Grading of Malting Barley

• U.K. standard for malting barley.

Very few "good" grains removed (reduced capacity).

Standard for malting barley. Oversize holes increases capacity.

#### Grading of maize

Grading.