

# Combi-Cleaner

MTKB



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# The most important processes involved in cleaning – combined in the MTKB Combi-Cleaner

## Careful cleaning of grain – the key to success

Grain is the most important staple food worldwide, and only the most effective cleaning will suffice for processing this valuable raw material. The first cleaning stage involves the separation of all oversize and under-size particles. The scalping sieve removes straw, strings and large stones, that is, all the impurities that are larger than the grain kernel. The sand sieve eliminates all impurities smaller than the grain kernel, for example sand, broken kernels and foreign seeds.

The next important step involves sorting the material into a heavy and a mixed fraction, with particles of the same size being separated according to their specific gravity. Separation is based on the differences in the flow velocity of the various material fractions: Heavy particles contact the oscillating sieve bottom and flow to the subsequent destoning stage, whereas the clean grain floats on a cushion of air to the material outlet.

The separation of low-density particles such as dust, hulls, chaff, shriveled kernels and foreign seeds is accomplished by air classification.

The Combi-Cleaner unites the following four operations in a single machine:

- The Separator separates according to size.
- The Concentrator sorts according to specific gravity.
- The Destoner removes stones.
- The Aspirator eliminates low-density particles and dust.

The machine features a space-saving design, a single housing for the four process operations, a drive and a

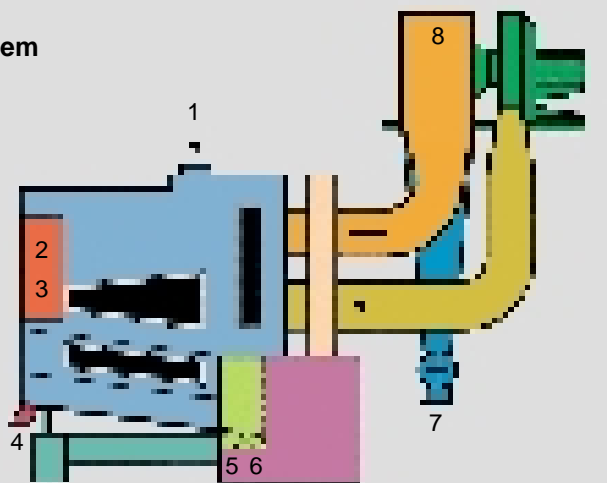
machine frame, a variable sieve inclination, interior lighting inside the machine, and a central aspiration connection that can be combined with the MANU air-recycling aspirator.

Experience gained in the field confirms that the machine's most outstanding characteristics include its ease of operation and maintenance. Fine-tuning of its operation is extremely simple. The machine's functional design ensures a high degree of sanitation.

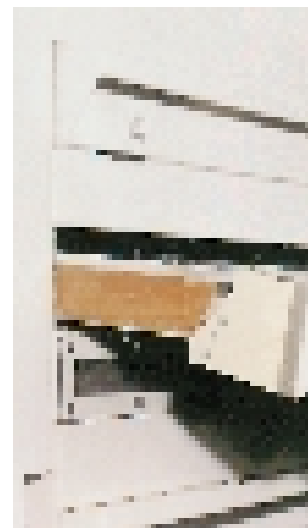


## MTKB Combi-Cleaner with air-recycling system

- 1 Inlet
- 2 Coarse impurities
- 3 Sand
- 4 Stones
- 5 Heavy fraction
- 6 Mixed fraction
- 7 Light fraction
- 8 Air-recycling separator



*The different sieves are easy to exchange, despite their rugged design.*



### Design

- Compact and space-saving design.
- Rugged design.
- One machine housing for four operations.
- One common vibrator drive.
- One machine frame.
- Easy adjustment of the sieve boat inclination.
- One coarse screen with final separation stage, two sand sieve decks.

- Adjustable division into a heavy and a mixed fraction.
- Variable final separation of stones.
- Double-adjustable wall in the aspiration channel.
- Fine regulation of the air velocity for separation of the light fraction.
- Central aspiration connection.
- With or without air-recycling system.
- Aspiration channel with interior lighting.

### Features

Easy operations and maintenance thanks to:

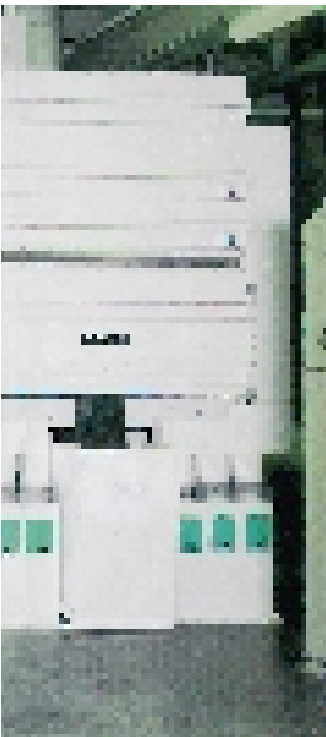
- Easy fine-tuning.
- Monitoring on a single floor.
- No lubrication points.
- No power transmissions.

High degree of sanitation thanks to simple, functional design.

High efficiency thanks to reduction of:

- Space requirement and building costs.
- Aspiration lines and filter surface area.
- Power requirement and energy costs.
- Installation time and costs.
- Gravity spouting.
- Electric connections and cables.
- Maintenance work and personnel.

Efficient cleaning and successful grain processing.



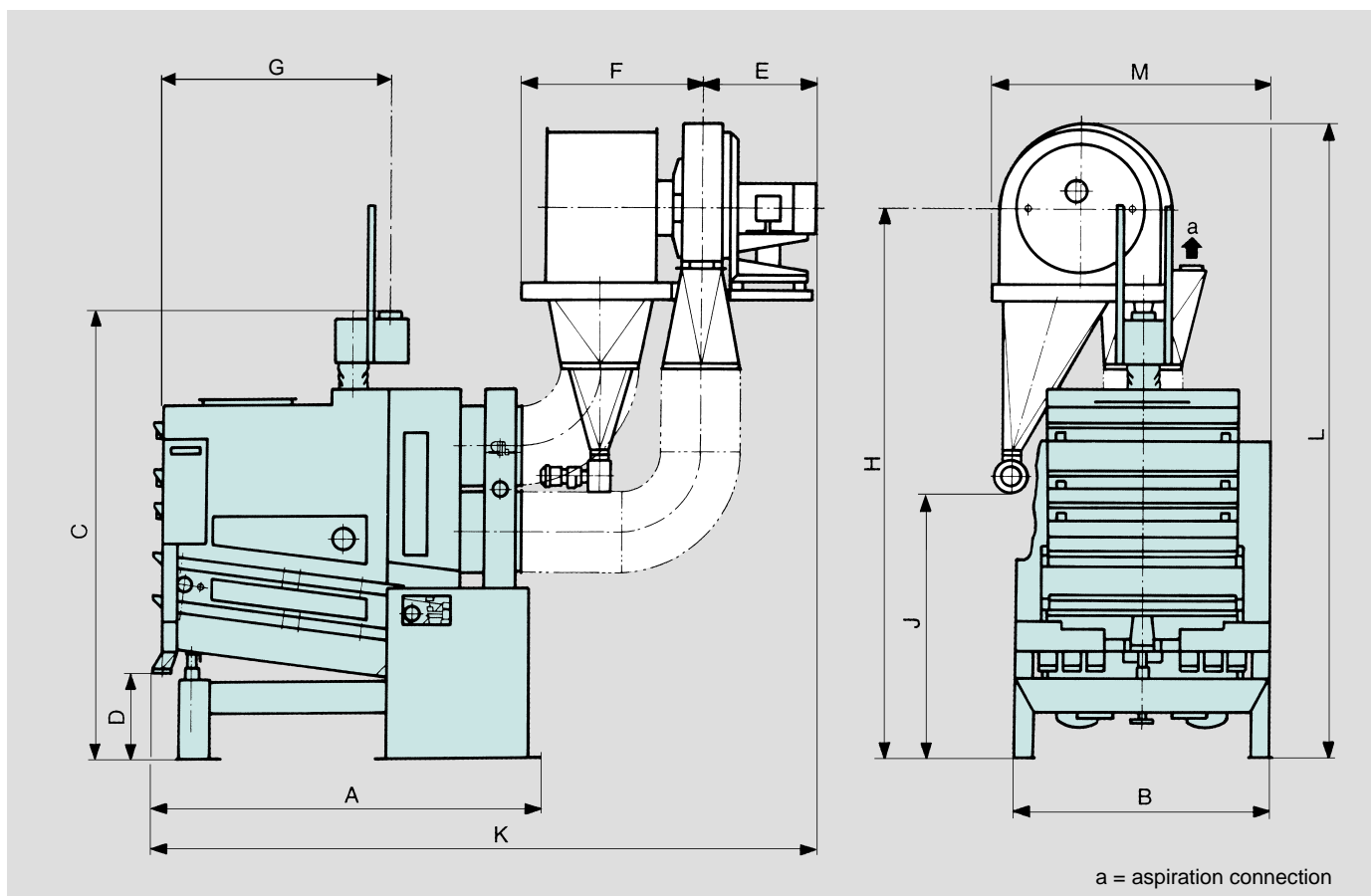
*Two MTKB-120/120 Combi-Cleaners in a large-scale grain mill.*



*The entire sieve support is driven by two synchronized vibrators.*



*The sieve inclination is easy to adjust.*



### Dimensions (mm)

Type	A	B	C	D	E	F	G	H	J	K	L	M
65/120	2460	1075	2800	494	659	871	1391	3120	1415	3935	3594	1510
120/120	2460	1635	2830	494	722	1143	1433	3490	1595	4180	4034	1780

### Technical data

\* U = with air-recycling system

Type	Capacity Wheat (approx. values) t/h	Air-recycling system		Aspiration with or without air- recycling system m <sup>3</sup> /min	Power requirement of vibrator kW	Approx. weights in kg			Volume of sea packing m <sup>3</sup>
		Model	Fan kW			net	gross	by sea	
MTKB-65/120	3–12	–	–	90	2×0.3	1240	1525	1670	9.0
MTKB-65/120 U*	3–12	MANU-35/40	11	12	2×0.3	1650	2035	2230	11.2
MTKB-120/120	12–24	–	–	160	2×0.75	1610	1915	2070	13.0
MTKB-120/120 U*	12–24	MANU-35/70	18.5	20	2×0.75	2350	2800	3025	18.0

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