

GRINDING COCOA PRESS CAKE



THE POWDER
COMPANY

Hygienic and gentle comminution as well as a precise end-product fineness is a top priority when processing high-grade cocoa powder, because these parameters play a decisive role in the later flavour of the end product. Not without good reason does theobroma cacao translate into "food of the gods".

AIR CLASSIFIER MILL MIKRO ACM FOR COCOA GRINDING

YOUR ADVANTAGES AT A GLANCE

- Fat content in cocoa of up to 26% possible
- Grinding chamber can be cooled direct
- Wear-protected grinding elements
- Hygienic air by means of a closed-circuit system
- No condensation
- Grinding and classifying in one single process step
- Defined particle size distribution
- Pressure-shock-resistant design in PSR 11
- ATEX-certified
- Low maintenance and cleaning effort

POWDER
AND
PARTICLE
PROCESSING



HOSOKAWA MICRON

A Division of HOSOKAWA ALPINE Aktiengesellschaft



SYSTEM

The entire grinding-classifying system is pressure-shock-resistant to 11 bar overpressure and is ATEX-certified. In the event of a dust explosion, the installed safety devices prevent the pressure wave and flame front from propagating to the environment and neighbouring equipment.

OUR SERVICE

We test your products in our application testing centre to find the optimum operating parameters for you, and in the case of new systems, the optimum system size. We deliver complete turnkey systems to include installation, commissioning and personnel training. Our after-sales service guarantees optimum support and technical advice. Our spare parts service delivers the necessary parts over the entire lifetime of your system.

SPECIAL DESIGN FOR COCOA

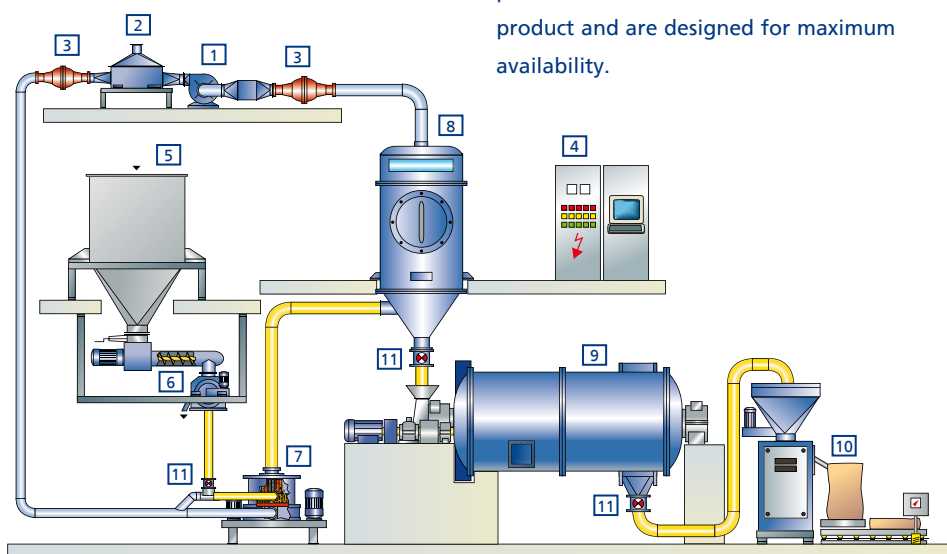
Because of the specific properties of cocoa and the process requirements, we have developed a number of special features:

- The grinding chamber can be cooled direct. Not until this innovation was the processing of cocoa with a fat content of 26% possible.
- The maintenance and cleaning intervals are reduced to a minimum and thus also the risk of microbiological contamination.
- The entire system is a closed-loop system, which brings a number of decisive advantages:
 - the low air humidity prevents condensation from forming
 - constant air quality thanks to the closed circuit, i.e. no atmospherically contaminated air enters the system.
- All grinding elements are in a wear-protected version selected to suit the product and are designed for maximum availability.

PROCESS

The cocoa press cakes are fed via a metal separator to the rotary airlock which meters the feed material into the stream of transport air. The air necessary for the grinding process is conditioned to suit the specific process requirements.

As a rule, the suction air is cooled to < 5°C to guarantee a cool and gentle grinding process. The cocoa powder is collected in a downstream bag filter and subsequently discharged. The finely ground cocoa powder is then stabilised by recrystallising the fat, a process step which requires controlled cooling of the product.



- 1 Fan
- 2 Heat exchanger
- 3 Explosion barrier valve
- 4 Control cabinet
- 5 Feed Product
- 6 Metall detector
- 7 Air Classifier Mill - Mikro ACM
- 8 Dust Collector
- 9 Stabilization/Cristallization
- 10 Packaging Unit
- 11 Rotary Air Lock

For further informations please contact:

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Machine size	Motor kW	Capacity kg/h fat content < 12%
ACM 40	30	800
ACM 60	45	1,200
ACM 75	55	1,500
ACM 100	75	2,000
ACM 120	90	2,500
ACM 150	110	3,500
ACM 200	200	5,500

PRODUCT SPECIFICATION

Properties	sticky and abrasive	
Fat content	10-12%	up to 26%
End fineness	99.7% < 75 µm	99.7% < 75 µm
	50% < 10 µm	50% < 10 µm
Throughput		
Mikro ACM 75	1,500 kg/h	750 kg/h