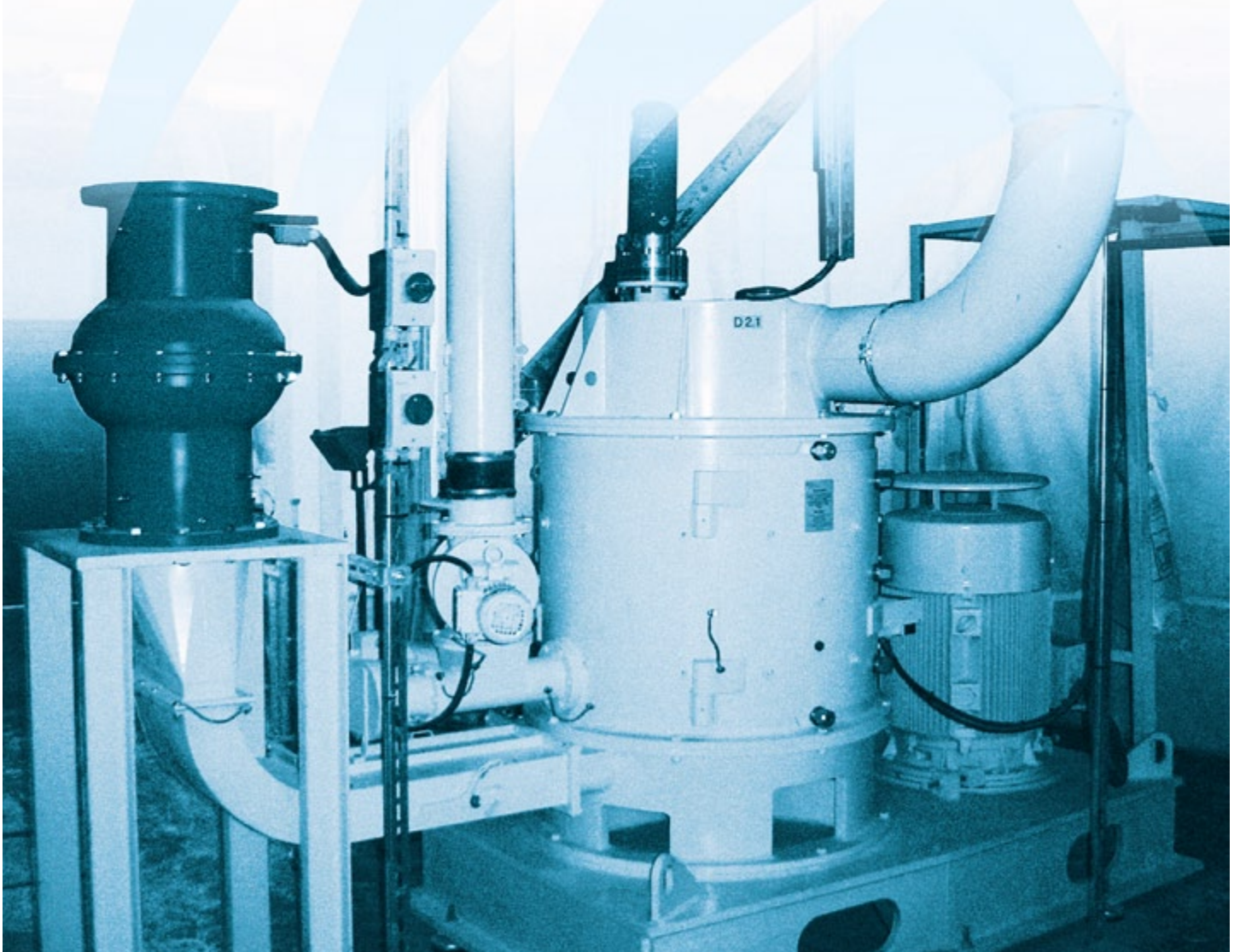
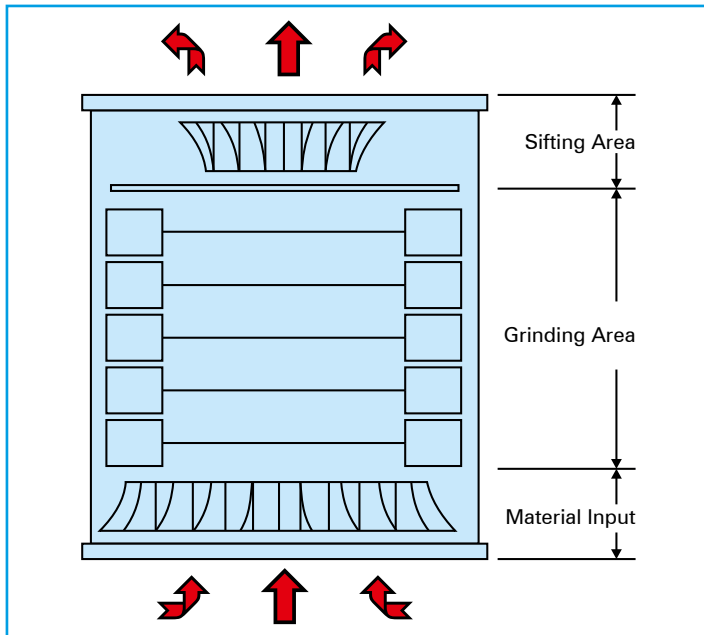




Mahltechnik
GORGENS



Grinding – Mixing – Drying



The Micro-Air-Whirl Mill can be split in three sections:

Sifting Area

- Selection of static or dynamic classifier

Grinding Area

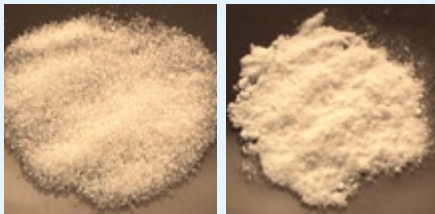
- Different profiles for the inner grooved liner available
- Different grinding tools to be combined in amount and geometry
- Variable residence time and turbulence matching for most economical drying to be set

Material Input

- Insertion of the material into the airflow and homogenization, as well as even distribution before entering the milling zone or with a feeding screw into the grinding area

Fine micronisation

Fine micronisation especially of crystalline materials like minerals, pigments, carbon, paint, sulphur, sugar as well as fibrous materials such as cellulose and its various derivatives, biomasses, bran and husk of various cereals, saw dust and others are micronised down to the micron range. To obtain a narrow particle size distribution the TurboRotor is combined with a dynamic classifier.



Icing sugar
(Input)

Icing sugar
(Output)

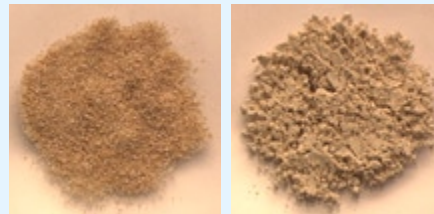


Fertilizer
(Input)

Fertilizer
(Output)

Grinding of heat sensitive products

Grinding of heat sensitive products such as various plastic materials, thermoplastics as well as duroplastics, flexible synthetic and natural rubbers, caoutchouc, waxes, stearates, soaps, sticky materials, agro products and those with a high fat content, materials with a softening or melting point just slightly above the ambient temperature, food products, such as extruded materials, cereals, starch- and protein-derivates, germs fibres, bran, defatted cacao beans, herbs, spices and others for the pharmaceutical and cosmetic industries.



Oat fiber
(Input)

Oat fiber
(Output)



NBR (Input)

NBR (Output)

Simultaneous grinding and drying

Simultaneous grinding and drying mechanically or thermally concentrated suspensions or slurries or in form of filter cake or in a crumb form or products from extruders. The TurboRotor is able to treat those wet feed materials with a very high thermal yield. Due to the very short residence time of the product in the system, the product does not suffer from quality. Some of our installations are in operation as a dryer only. Most food products (cereals, starch, proteins – both from plants and animals, spices, sea weeds, dairy products, paint and pigments, as well as a wide range of waste products are turned into higher value products.



Sealgae (Input)

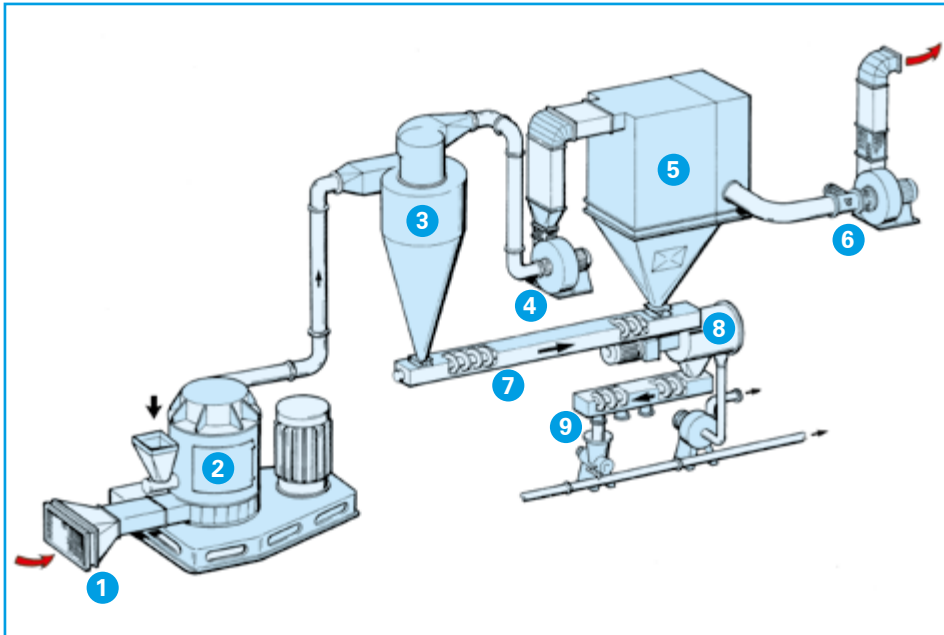
Sealgae (Output)



Phthalocyanin blue
(Input)

Phthalocyanin blue
(Output)

TurboRotor-System



1. Heatexchanger for cooling or heating of the process air
2. Micro-Whirl -Mill with metering depending on load and temperature
3. High-duty cyclone HFA for controlled pre separation
4. High-duty fan with high total pressure
5. High-duty bag filter with low pressure reverse air-jet
6. High-duty fan with automatic volume flow control
7. Collection screw for micronised product
8. Rotational screen for product seizing
9. Distribution worm for bagging off or pneumatic conveying

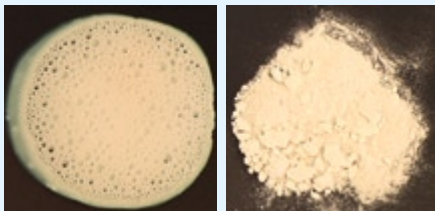
Simultaneous grinding and spray drying

Mainly in food-, mineral-, in pigment- and chemical industries a wide range of products made available in liquid form. It has been proven since a few years, that the TurboRotor grinding spray drying process needs much less investment, less space and is operated with a much higher thermal yield than any type of spray-drier. The TurboRotor grinding spray drying system is a process to produce a final dry powder free of agglomerates.



Wheatstarch (Input)

Wheatstarch (Output)



Latex (Input)

Latex (Output)

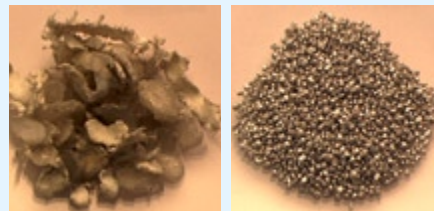
Selective grinding

Selective grinding of composite materials consisting of metal and/or paper and/or plastics, such as wrapping materials, aluminium-plastic foils, printed circuits, electronic waste and thin copper cables. These materials are treated in a way, that the metal fraction is converted into more or less tiny balls, whilst the other fractions are made available in form of flakes with view to separate them downstream from each other.



Floorheating pipes (pregrinding)

Floorheating pipes (Input Turbo Rotor)

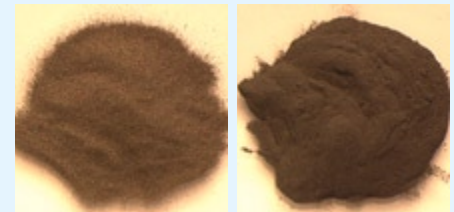


Floorheating pipes (Output plastic)

Floorheating pipes (Output aluminium)

Grinding-Mixing-Coating

Grinding and simultaneous mixing when feeding different components in food-, cosmetic- and pharmaceutical industries. Grinding and simultaneous drying and/or coating of minerals or food or animal feed materials with waxes, stearates, hydrated fats or stabilizers.



Aluminum powder

Aluminum powder with 0,5% stearic acid



Calcinated caolin

Calcinated caolin with 1% silane



Range of sizes

Type	Driving power (kW)	Revolutions (rpm)	Evaporation capacity (kg/h)	Air volume (m ³ /h)	Relation in capacity
G-35	7,5 - 18	4000 - 8000	60 - 80	800	0,5
G-55	15 - 55	1800 - 3500	150 - 200	2000	1
G-90	45 - 110	1350 - 2500	400 - 600	6600	2 - 3
G-130	90 - 200	1100 - 1700	800 - 1200	12000	7 - 9
G-150	160 - 280	900 - 1200	1000 - 1600	16000	10 - 15
G-180	250 - 355	750 - 1100	1200 - 2200	25000	15 - 20
G-200	315 - 400	600 - 900	2500 - 4000	50000	20 - 35

The contact parts can be executed in different materials of construction matching the product's requirements. Safety devices to be regarded according to the product parameters are executed following ATEX 94/9/EG



Mahltechnik Gorgens GmbH
 Norfer Strasse 22
 D-41539 Dormagen

P +49 (0) 21 33 -24 51 -0
 F +49 (0) 21 33 -24 51 -44

info@mahltechnik-goergens.de
 www.mahltechnik-goergens.de