Pilot
Grinding Units

For fine grinding of industrial minerals and recycling
Product fineness: d_{97} = 3 up to 300µm
Throughput: 10 up to 1500 kg/h



EIRICH

The Pioneer in Material Processing®

Pilot plants
with Eirich grinding

Features
- dry fine grinding
- iron-free grinding possible
- easy and fast accessibility
- temperature measurement inside the grinding media filling
- wear protection for highly abrasive grinding
- materials possible

Pilot grinding plant: versatile in use
- as a pilot plant for process development or in the field of research and development
- for the production of small quantities
- for production plant in continuous operation

Designed for continuous operation
Whether you frequently require different materials and finenesses in small quantities orthe plant is to operate as a small production plant in continuous operation. The grinding units give you all the flexibility you need.

Compact module, quickly ready for operation
All components of the grinding plant are mounted on a solid base frame to form a transportable module, connected to each other and wired.
Before delivery, the grinding plant is parametrised in the Eirich plant and pre-commissioned without grinding material.

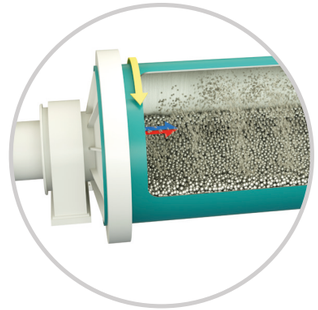
The instruction of the operating personnel and the commissioning with material is carried out under the supervision of an Eirich Impianti process engineer either in our plant or directly at the installation site.

Good accessibility is guaranteed
- generous arrangement of the system
- components to each other
- convenient working heights
- easy access for maintenance
- no emptying of the grinding chamber necessary to open and close the mill
- grinding container easy to dismantle
- air classifier integrated or stand alone

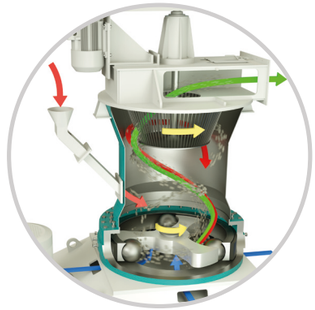


The grinding plant in detail
1. Volumetric or gravimetric material dosing
2. Grinding unit
3. MaxxClass air classifier
4. Product filter
5. Turbo fan
6. Plant control system
7. Module frame

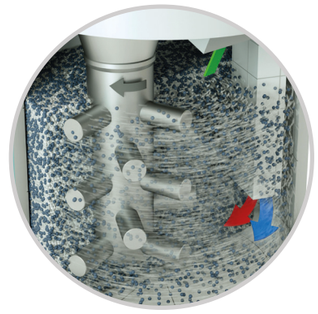
Pilot units
models and sizes



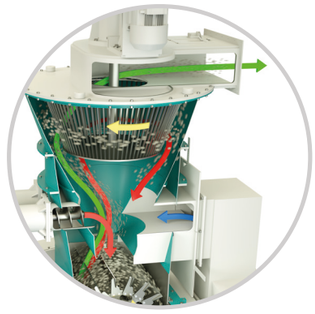
Fluxxmill
Horizontal ball mill



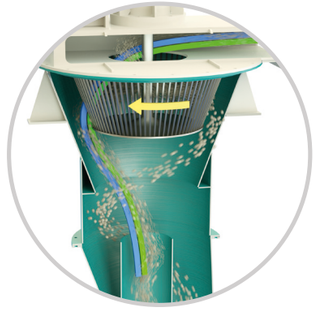
Orbitmill
Centrifugal ball mill



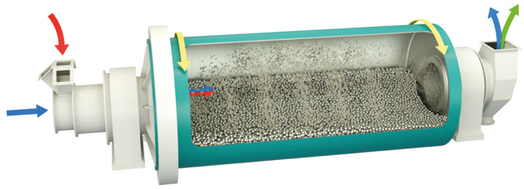
MaxxMill
Vertical agitated mill



TurboGrinder
High speed impact mill



MaxxClass
air classifier



FluxxMill®
Horizontal ball mill

- Dry grinding, also iron free, of brittle and very abrasive materials
- Possible combined drying and grinding

Mill size FM	Drum		Motor Power kW
	Diameter mm	Lenght mm	
500 × 900	500	900	5
1100 × 2200	1100	2200	18,5
1100 × 2500	1100	2500	22
1100 × 2500	1100	2500	22
1200 × 2700	1200	2700	30
1400 × 3000	1400	3000	45

Applied materials
Cement, silicate, new-type building material, refractory material, ore dressing of ferrous metal and non-ferrous metal, glass ceramics, aluminium oxide, slag, fly ashes, etc.

Final product
d_{97} = 10 up to 500µm
Feed material: up to 30 mm
Hardness: up tp 9 Mohs

MaxxMill®
Vertical agitated media mill

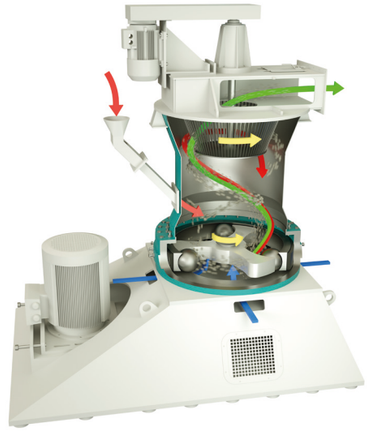
Dry and wet grinding, also iron free, of brittle and very abrasive materials

Applied materials
Aluminium oxide, bauxite, bentonite, calcium carbonate, china clay, diatomite, frits, feldspar, pigments, quartz, cement, gypsum, zirconium silicate, slag, fly ashes, etc.

Final product
d_{97} = 5 µm
Feed material: up to 2 mm
Hardness: up to 9 Mohs



Data	MaxxMill® MM3
Capacity range (t/h)[1]	up to approx. 2.5
Grinding chamber volume (l)	190
Number of agitators (-)	1
Drive rating up to (kW)	25 - 50
Grinding media/ball diameter	EIKORIT® oxide ceramic/EIDURIT® steel approx. 3 - 10 mm



OrbitMill®
Centrifugal ball mill

- With incorporated air classifier,
- Dry grinding of brittle & abrasive materials
- Possible combined drying and grinding

Mill size OM	Drum		Ball number	Motor Power kW
	Orbit	Ball		
60	710	160	4	22
70	710	160	3	15

Applied material
Limestone, glass, coke, calcite, recycling, hydrate lime, dolomite, clay, phosphate, rock, magnesite, zeolite, gypsum, active carbon, barite, olivine, chamotte, etc.

Final product
d_{97} = 20 up to 400 µm
Feed material: up to 20 mm
Hardness: up tp 5 Mohs

OrbitMill is also available in Container, ideal for temporary and movable solutions.

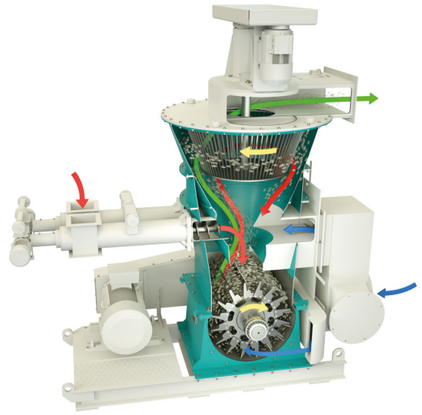
TurboGrinder
High speed impact mill

- With incorporate air classifier
- Possible combined drying and grinding
- Dry grinding, disagglomeration of brittle and less abrasive materials

Applied materials
Limestone, glass, coke, calcite, recycling, hydrate lime, dolomite, clay, phosphate, rock, magnetise, zeolite, gypsum, active carbon, barite, olivine, chamotte, etc.

Final product
d_{97} = 20 µm up to 400 µm
Feed material: up to 30 mm
Hardness: 3–4 Mohs

TurboGrinder is also available in container, ideal for temorary and movable solutions.



Mill size TG	Drum		Motor Power kW
	Orbit	Ball	
50 – 15	500	150	7,5 – 11
50 – 30	500	300	15 – 22

MaxxClass
Dynamic air classifier

- For inline and offline classification
- Single and multi wheel design
- Wear protected design possible

Applied materials
Suitable for every kind of mineral powder

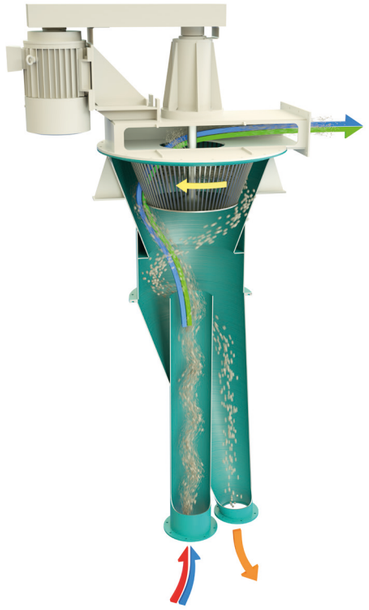
Final product
For dry classification of powders in the range
d_{97} = 5 to 400 µm

- MSCW Single-wheel: down to d_{97} =15 µm
- MSCW Multi-wheel: down to d_{97} =5 µm

Classifier	Airflow m³/h	Motor kW*
MCSW 26	400	0.55 – 1.5
MCSW 40	800	1.5 – 5.5
MCSW 65	1700	3 – 18.5
MCSW 80	3500	22
MCSW 100	4800	4 – 30

Classifier type	Airflow m³/h	Motor kW*
MCMW 3 • 40	3000	1.5 – 5,5
MCMW 4 • 40	4600	1.5 – 5,5
MCMW 6 • 40	7000	1.5 – 5,5
MCMW 3 • 65	7500	3 – 18.5
MCMW 4 • 65	10000	3 – 18.5

* Installed performance per motor



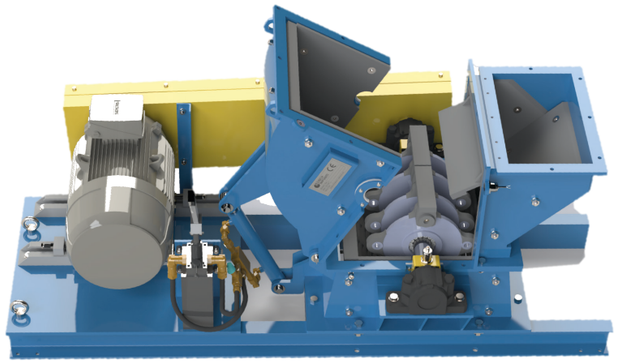
Flexibility & Modularity

A fully integrated and automated place for your pilot plants!

Complete solutions – modularity and flexibility
Eirich Impianti designs complete solutions for pilot plants with multiple purposes and material handling, from basic engineering to the final commissioning:

Pre-crushing
In case of need, Eirich Impianti provides also solutions for pre-crushing with EMU hammer mills and ERC roller crusher.

Covering up the whole process
To meet all process needs and thanks to the collaboration with European partners, Eirich Impianti can provide feeding, conveying, drying, iron removing, storage, control system.



EMU Hammer Mill



EIRICH

The Eirich Group, with the machine factory Gustav Eirich as its strategic center in Hardheim, is a provider of machinery, systems, and services for mixing technology, granulation/ pelletization, drying, and fine grinding. Our core competence lies in processes and procedures for the processing of bulk materials, slurries, and pastes. We are a family owned company with a presence in 16 locations worldwide.

You can find more information at:
www.eirich.de