

Cement
reducing emissions and new frontiers

Pilot and Industrial dry grinding technology

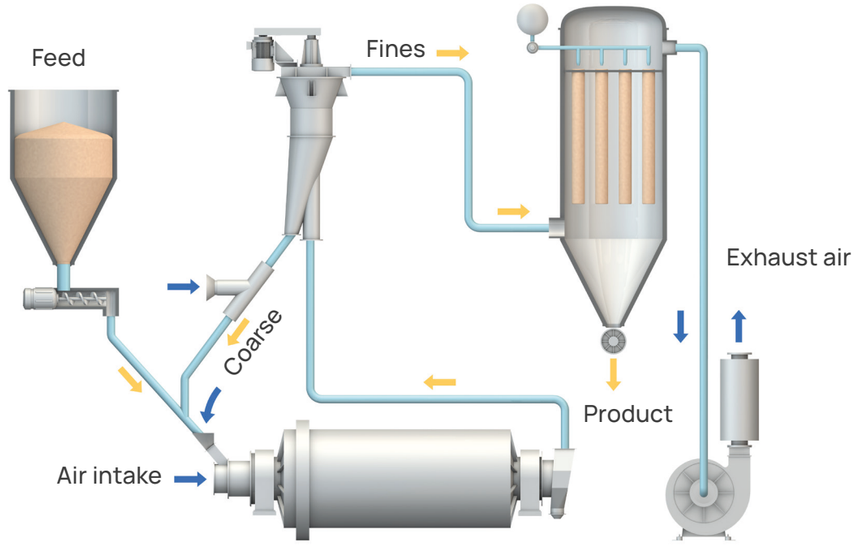
For fine grinding of

- Slag
- Fly ashes
- Pozzolans
- Limestone
- Clay
- Recycling concrete
- and other aggregates

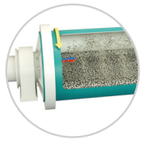
EIRICH

The Pioneer in Material Processing®

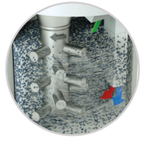
Increased portions of materials like slag, limestone, clay, recycled concrete and other aggregates become crucial for this revolution.

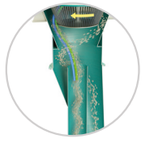


Major industry opportunity to decarbonise
Low-clinker cement and concrete technologies could decarbonise cement industry by over 50% within the next decade, reducing the cement industry's emissions by up to 1.6 billion tonnes, allowing it to make a huge contribution to overall global decarbonisation efforts. These are already available today at little or no additional cost to the cement industry.


Fluxxmill
Horizontal ball mill


Orbitmill
Centrifugal ball mill


MaxxMill
Vertical agitated mill


MaxxClass
Air classifier

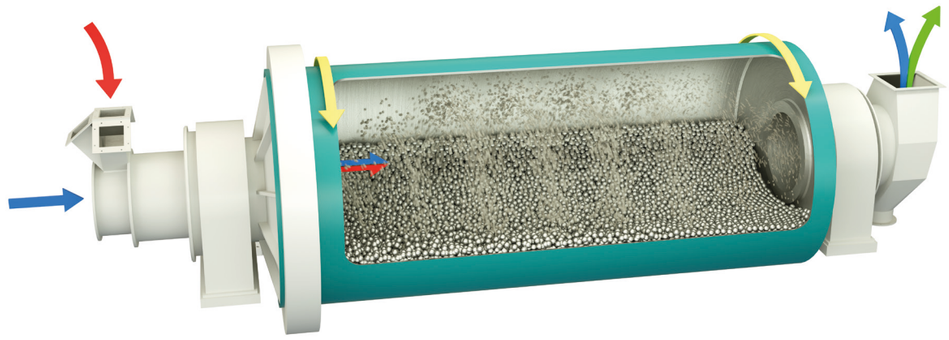
FluxxMill®
horizontal ball mill

FluxxMill®
- Horizontal ball mill
- Possible combined drying and grinding
- Dry grinding, also iron free, of brittle and very abrasive materials.

Applied materials
Cement, silicate, swag, fly ashes, pozzolans, recycling

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

Mill size FM	Drum		Motor Power kW
	Diameter mm	Lenght mm	
1100 × 2500	1100	2500	22
1200 × 2700	1200	2700	30
1400 × 3000	1400	3000	45
1400 × 3500	1400	3500	55
1600 × 3500	1600	3500	75
1600 × 4000	1600	4000	90
1800 × 3500	1800	3500	110
1800 × 4000	1800	4000	132
1800 × 4500	1800	4500	160
2000 × 4500	2000	4500	200
2000 × 5000	2000	5000	225
2200 × 4700	2200	4700	250
2200 × 5500	2200	5500	315
2200 × 6000	2200	6000	355
2600 × 5500	2600	5500	450
2800 × 5500	2800	5500	560
2800 × 7000	2800	7000	710



MaxxMill®
Vertical agitated media mill



MaxxMill®

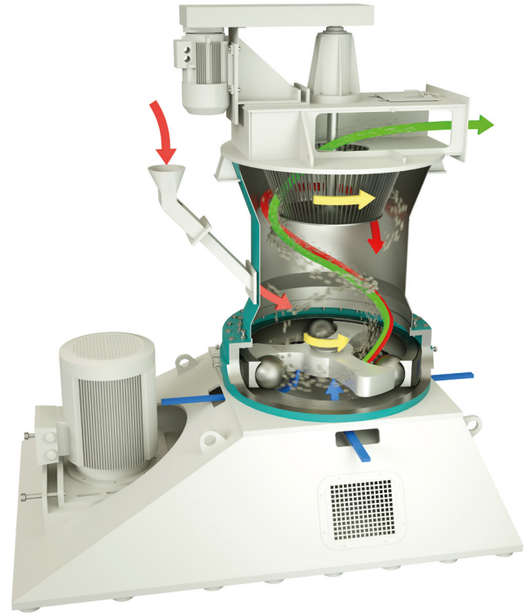
- Vertical agitated media mill
- Dry and wet grinding, also iron free, of brittle and very abrasive materials

Applied materials
Cement, silicate, slag, fly ashes, pozzolans, limestone, clay

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

Data	MaxxMill® MM3	MaxxMill® MM5
Capacity range (t/h)[1]	up to approx. 2.5	up to approx. 10
Grinding chamber volume (l)	190	800
Number of agitators (-)	1	2
Drive rating up to (kW)	25 – 50	120 – 200
Grinding media/ball diameter	EIKORIT® oxide ceramic/EIDURIT® steel approx. 3 – 10 mm	
Max. grinding media charge weight (kg)	up to 500	up to 2100
Feed material range (mm)	< 2	< 2
Final fineness (d_{97}µm)	down to 5	down to 5
Dimensions approx. h/w/d	2600 x 900 x 1700	3500 x 2000 x 3100
approx. Weight	3 - 3.5 t	11.5 t

OrbitMill®
Centrifugal ball mill



OrbitMill®

- Centrifugal ball mill with incorporated air classifier.
- Possible combined drying and grinding
- Dry grinding of brittle and abrasive materials

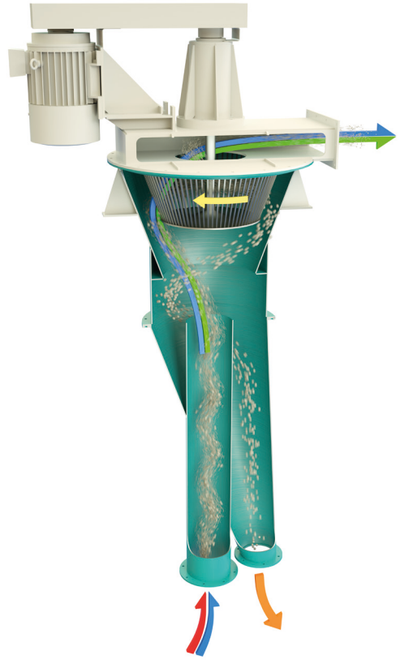
Applied material
Limestone, clay, dolomite, gypsum, glass, recycling

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

Mill size OM	Drum		Ball number	Motor Power kW
	Orbit	Ball		
70	710	160	4	22
100	1000	260	4	37
120	1200	260	6	55
150	1500	400	4	75
160	1600	360	6	90
180	1800	400	6	132
180 A	1800	480	6	160
200	2000	500	6	200

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

MaxxClass
Dynamic air classifier



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
- Hardness: up tp 9 Mohs

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

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
MCMW 6 • 65	13000	3 – 18.5
MCMW 4 • 80	13500	3 – 22
MCMW 6 • 80	20000	3 – 22
MCMW 3 • 100	18000	4 – 30
MCMW 6 • 100	28000	4 – 30
MCMW 6 • 120	36750	4 – 30

Classifier type	Airflow m³/h	Motor kW*
MCSW 26	400	0.55 – 1.5
MCSW 40	800	1.5 – 5.5
MCSW 60	1700	3 – 18.5
MCSW 65	1700	3 – 18.5
MCSW 80	3500	22
MCSW 100	4800	4 – 30
MCSW 120	7000	4 – 30
MCSW 140	10000	4 – 30
MCSW 160	14000	5.5 – 30
MCSW 180	18000	7.5 – 30
MCSW 200	22000	15 – 30
MCSW 220	28000	22 – 30
MCSW 240	35000	22 – 37
MCSW 260	43000	37 – 55
MCSW 280	49000	55 – 75

* Installed performance per motor

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
No matter whether you frequently require different materials and finenesses in small quantities or the 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





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