



## WE DO OUR BEST TO ENSURE YOUR SUCCESS

We could have used this section to write about incredible engineering achievements, professionalism, flexibility and keeping to deadlines, exceptional customer relations and top-class service.

These kinds of superlatives are found in brochures everywhere.

Why didn't we? Because only one thing is important for us: we want to make a decisive contribution to your success. That is what we work for and what we are committed to, and we use all our enthusiasm and energy for this purpose.



## WHAT YOU SHOULD KNOW ABOUT US

We operate on the basis of individual responsibility. Every member of our team has the right to make high-level decisions. The entire responsibility for a project – from planning to commissioning – rests with a single person. This means that you have the same, competent contact partner for all your queries, wishes and suggestions, without exception.

In addition to standard orders your individual requirements are also fulfilled rapidly and without complications.



**INDUSTRIAL PLANT DESIGN  
GRINDING ENGINEERING  
ROTARY DRUM TECHNOLOGY  
DRIVE ENGINEERING  
COMPONENTS AND ACCESSORIES**



## **CEMTEC - YOUR PROJECT, YOUR PARTNER**

CEMTEC Cement and Mining Technology GmbH manages projects throughout the world for the cement and processing industry. From start to finish. From planning to commissioning.

Our range of products includes tube mills for grinding the most wide-ranging bulk materials and minerals, and rotating drums for thermal treatment (calcination, drying, cooling) and mechanical processing (mixing, washing, conditioning, etc.) of different bulk materials.

We also offer erection supervision, commissioning and technical support.





## CEMENT MILLS

Two-chamber ball mills for the cement industry are available in different designs. The bearings can be either trunnion bearings or slide shoe bearings. The drive can be configured as a crown wheel and pinion, lateral or central drive. If the process material is moist, cement mills can also be configured with a drying chamber. The drying chamber can be either integrated in the mill or flange-mounted. The mill shell can be configured equally easily in one piece or (for transport reasons) in several pieces.



## WET GRINDING BALL MILLS

Wet grinding ball mills for the treatment of minerals, ores and other bulk materials for the wet grinding process. A large number of these mills are used for grinding silica sand for producing aerated concrete or fibre cement. The mills are also used for treating iron and various other ores. These mills are also available in different designs. Smaller mill sizes can largely be delivered in a pre-assembled state, which in turn means a great saving in terms of time and installation costs.



## LIMESTONE GRINDING FOR FGD

Machines and plants for flue gas desulphurisation systems in calorific power stations. Wet grinding ball mills for grinding limestone (limestone suspension) including process-critical plant parts such as pumps, hydrocyclones, etc. up to the turn-key plant. Layout and dimensioning are carried out with calculation programs developed in-house and can be supported with grinding tests in our pilot plant. The construction of these mills is characterised by a high level of availability and ease of maintenance. The mills can be delivered assembled to a high degree, which in turn means a great saving in terms of time and installation costs.



## AG / SAG MILLS

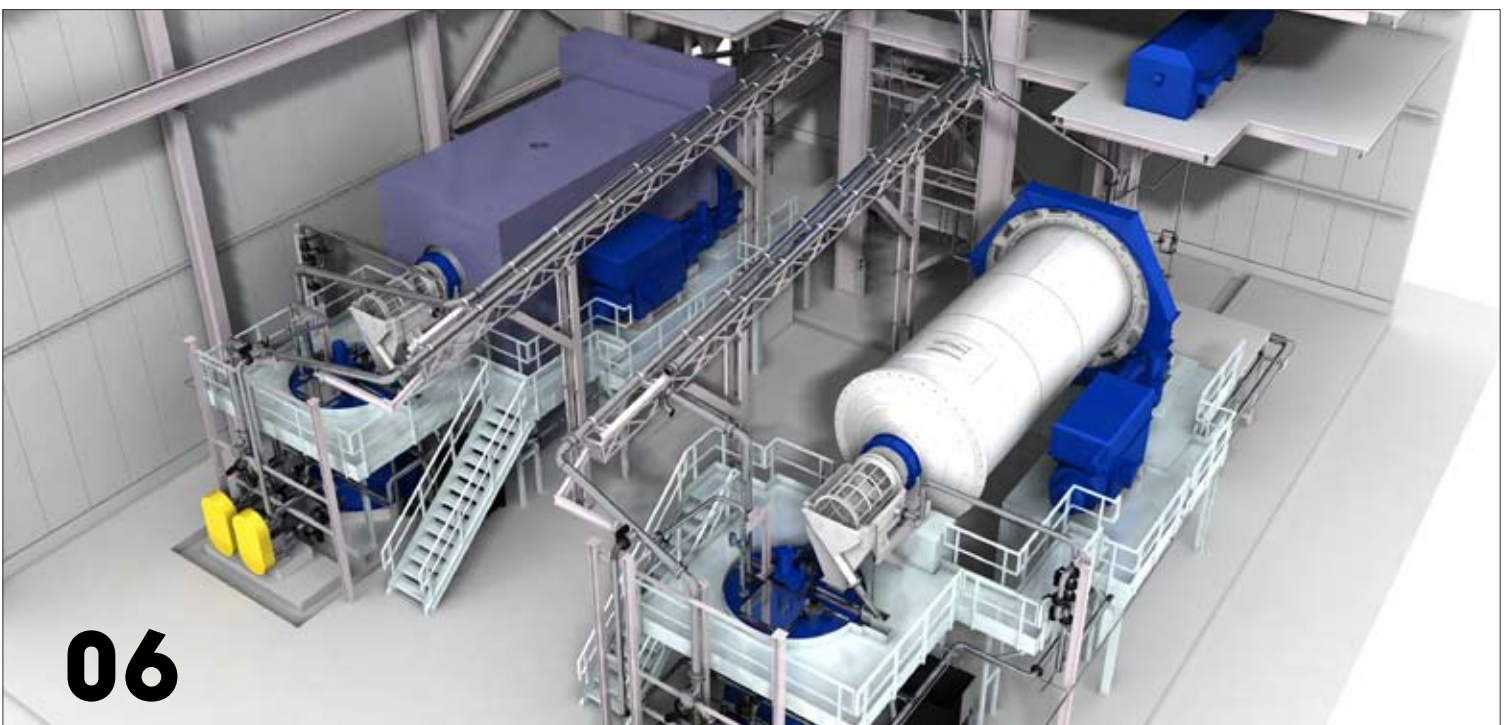
Fully autogenous and semi-autogenous mills as aggregates for pre-crushing of minerals and ores and comminuting waste such as bulky refuse. AG and SAG mills can be configured both for the dry grinding process and for the wet grinding process. The bearings are hydrostatic trunnion bearings or slide shoe bearings. The drive is usually in the form of a crown wheel and pinion or a lateral drive. Our product range includes sizes from laboratory scale up to a diameter of 10 m or more. These mills have a multi-part, flanged design for transport reasons.



## TURN-KEY GRINDING PLANTS

In the field of plant construction, we have systematically adapted our range of services to cement, construction material and treatment technology and can therefore offer technically specific process expertise in addition to delivering, transporting and installing such plants. Our services range from technically competent consultation to engineering services and turn-key implementation of a wide variety of plants, such as:

- » Turn-key raw meal and cement plants incl. raw material handling, storage and packing plant.
- » Turn-key limestone wet grinding plants for producing limestone suspension for flue gas desulphurisation systems.
- » Turn-key treatment plants for the construction material, filler, recycling, fertiliser and chemical industries.
- » Turn-key drying plants.





## TURN-KEY CEMENT GRINDING PLANT

### Plant capacity:

115 tph of OPC 3300 Blaine  
142 tph of OPC 2800 Blaine  
57 tph of slag 4400 Blaine

### Raw material storage:

3-compartment raw material shed 72 x 36 x 12 m  
Clinker silo with a capacity of 25,000 tons gross  
Raw material handling 600 tph

### Cement grinding unit:

Shell supported ball mill  $\varnothing 4.6 \times 14.25$  m, 4,700 kW  
3rd generation high efficiency air separator  
Filter separation 220,000 m<sup>3</sup>/h

### Cement storage:

2 x 1-compartment cement silo  $\varnothing 16.0 \times 48.0$  m, with a capacity of 8,000 tons  
Bulk loading 2 x 200 tph

### Big bag plant:

max. 30 big bags per hour

### Packing plant:

Rotocem packing machine 2,200 bags per hour

### Logistics system (complete):

incl. 4 weigh-bridges (120 tons each)



## DRYING DRUMS

Machines and plants for drying bulk materials including the process-critical plant parts such as filters, fans, burner installations for a wide variety of fuels etc. up to the turn-key plant. Layout and dimensioning are carried out with calculation programs developed in-house and can be supported with drying experiments in our pilot plant. The rotary dryers are available in two different designs: the single-shell dryer for drying large quantities and the double-shell dryer for smaller applications.



## ACCESSORIES

Our product range also includes:

- » Grinding media sorting machines
- » Ball dosing devices
- » Laboratory mills
- » Ball filling devices



## ON-SITE SERVICE

Our product range also includes:

- » Consultation
- » Supervision of installation
- » Installation
- » Supervision of commissioning
- » Commissioning
- » Maintenance
- » Repair works
- » Training



## SPARE PARTS

Our product range also includes:

- » Spare parts procurement for CEMTEC machines and plants
- » Spare parts procurement for machines and plants of other companies
- » Procurement of wear parts



# TESTS

## GENERAL

- » Test of rock granulations by fragmentation into specific grain fractions by crushing
- » Determination of the work index according to Bond (Bond test) for ball and rod mills
- » Description of sampling
- » Determination of volume stability
- » Production of suspensions
- » pH determinations

## TESTS

- » Surface humidity
- » Humidity
- » Grading
- » Particle shape
- » Bulk density
- » Grain gross density (drainage procedure)
- » Drainable components (wash procedure)
- » Resistance against frost
- » Water absorption of porous rock granulations
- » Sulfate content (N)
- » Chloride content (N)
- » Grain size distribution via sieving into grain fractions (sieve analysis)
- » Grain size distribution with Mastersizer 2000 from 2,000  $\mu\text{m}$  to 0.02  $\mu\text{m}$
- » Grinding refinement with determination of specific surface according to Blaine
- » Bulk density (influx apparatus according to Böhme)
- » Humidity with humidity tester
- » Annealing loss (up to 1,300 °C)

## SPECIAL EXAMINATIONS IN THE AREAS OF REPROCESSING TREATMENT AND RECYCLING:

- » Recycling glass
- » Waste material
- » Waste from dust
- » Waste products from foundries

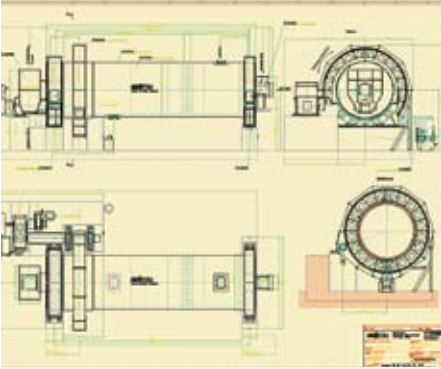
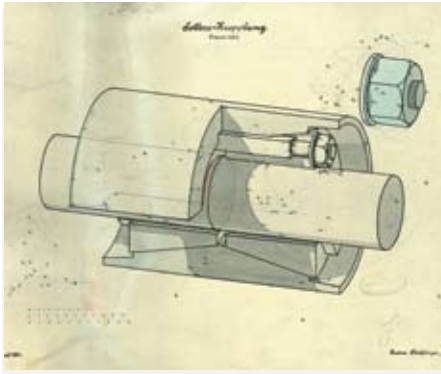
# GRINDING AND SEPARATION PLANT

Examinations and investigations of minerals on grindability related to the throughput, to the resulting sieve characteristic and necessary energy consumption in the

- » open dry circuit
- » closed dry circuit
- » open wet circuit
- » closed wet circuit

Individual examination of the ability to separate materials only with separators, without a milling circuit (without milling) into different grades of fineness. Separating later from 2  $\mu\text{m}$  to 100  $\mu\text{m}$ .

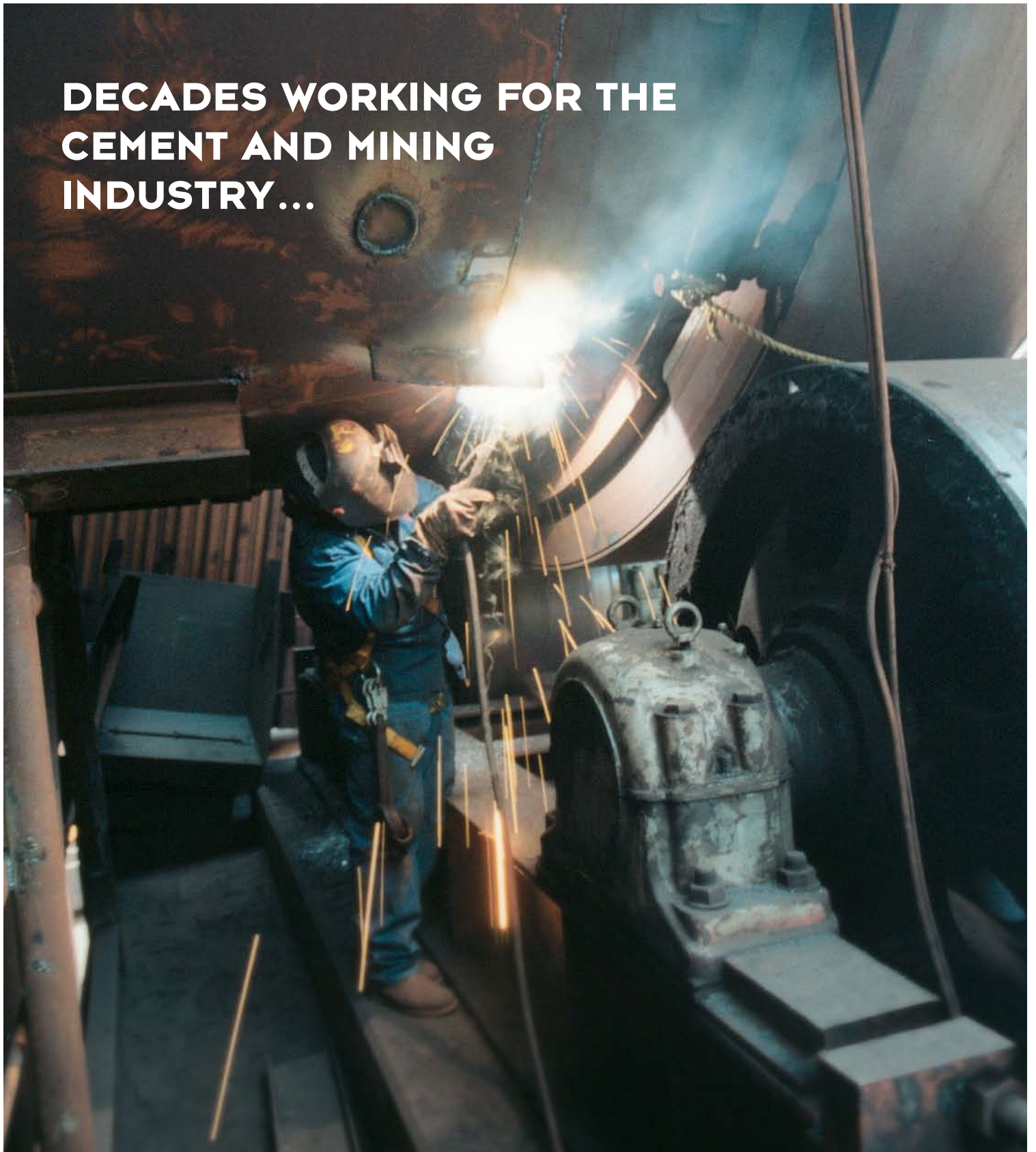




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**EXPERIENCE WITH A PEDIGREE >**

# DECADES WORKING FOR THE CEMENT AND MINING INDUSTRY...



**WHEN YOUR MONEY IS ON THE LINE, YOU NEED A PROFESSIONAL TEAM.**

A team with complete mastery of mill and drum construction technology. A team in which experience and innovation go hand in hand.

In short, a team that will help your company to achieve success. Successful projects all over the world speak in our favour, in favour of CEMTEC.



[www.cemtec.at](http://www.cemtec.at)



**CEMTEC**

**CEMENT  
AND  
MINING  
TECHNOLOGY  
GMBH**

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