



**CLAUDIUS PETERS**



# Gypsum **TECHNIK**

**We know how**

# about

---

Since its founding in 1906, Claudius Peters has become one of the world's most respected engineering houses and an innovative world leader. Its German engineering excellence continues to set benchmarks for the design, manufacture and commissioning of materials handling and processing systems for the gypsum, cement, coal, alumina, steel and bulk-handling industries.

The Claudius Peters Group GmbH is headquartered in Buxtehude near Hamburg, Germany, with regional offices in the Americas, Asia and Europe.



After extraction, Claudius Peters gypsum technik delivers innovative end-to-end process solutions for gypsum producers worldwide.

# gypsum grinding and calcining technology



## Experience and quality in one place

With over 170 systems sold worldwide over a period of more than 50 years, Claudius Peters has long been a leading and highly respected global name in grinding and calcining technology.

Robust design and the highest standards of quality ensure the longest possible service life for Claudius Peters products, even under the most difficult of operating conditions.

Within its main applications of grinding, drying, grinding calcination or combinations of both, the Claudius Peters EM mill is a central component of calcining plants around the globe.



Claudius Peters EM 59 Mill.

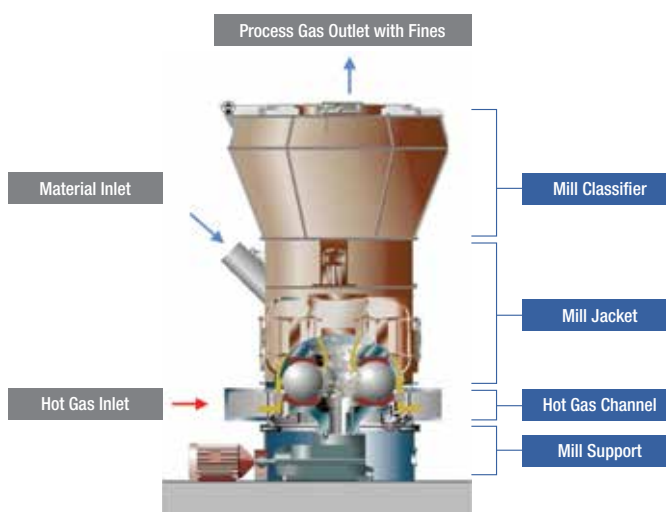
---

Customized solutions delivering a one-stop capability

---

## Reliable solutions delivering a one-stop-shop capability

Maximum reliability combined with impressive operating costs, makes Claudius Peters the ideal partner for any gypsum project. From stockyard and materials handling systems to pneumatic conveying, storage, mixing, packing and dispatch systems, gypsum producers can rely on Claudius Peters for all their requirements.



Operation of Claudius Peters EM Mill.



# EM Mill

## Consistently uniform product quality

---

Maintenance-free  
grinding & calcining  
system with  
an outstanding  
service life

---

Claudius Peters' EM mills are able to grind and also calcine different gypsum raw materials simultaneously. With the anticipated transition from synthetic to natural gypsum and the need to use larger quantities of recycled materials, our technology offers a high degree of flexibility paired with consistent product quality.



The EM mill is the ideal calcining system for three different kinds of raw material.

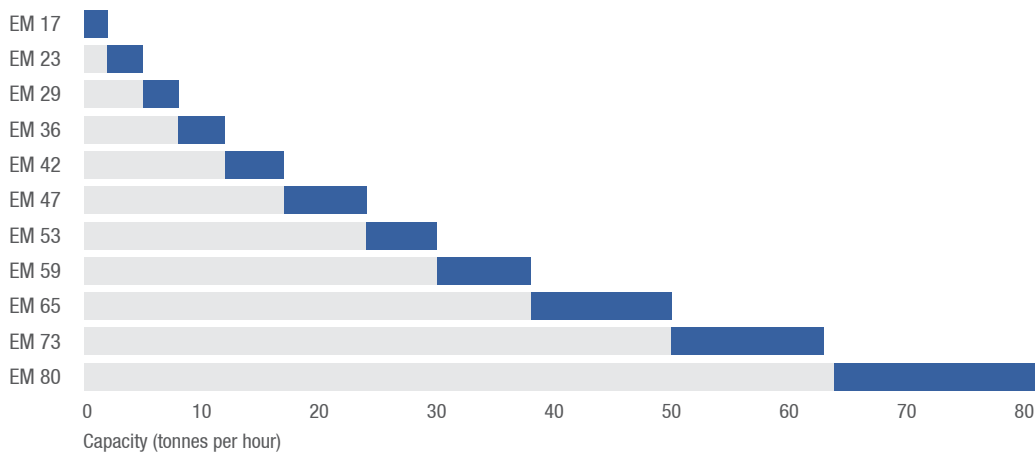
For the mechanical processing of production waste and recycled plaster we recommend the Claudius Peters Reclaim Crusher.



Claudius Peters Reclaim Crusher

## Outstanding performance

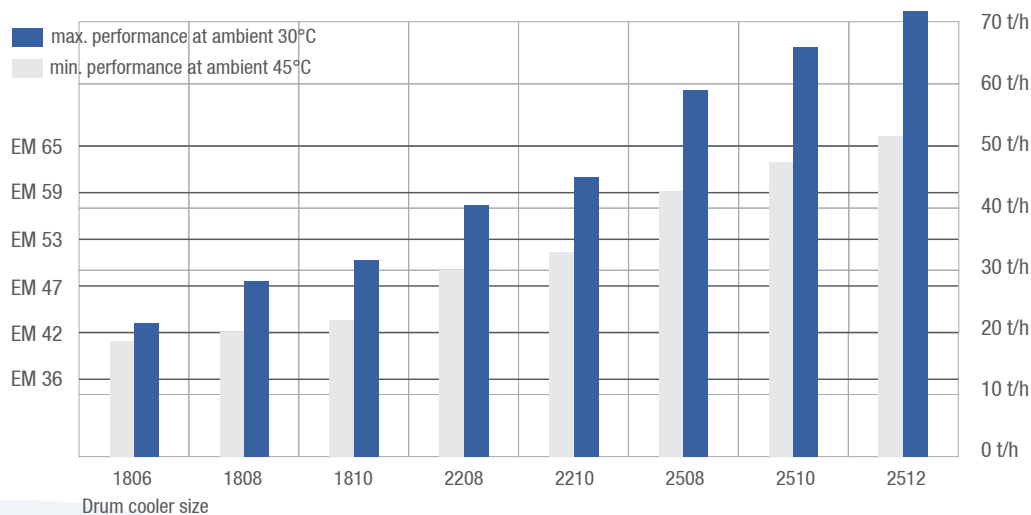
### Capacity range for EM Mills.



Achieving ever  
greater reliability  
and energy  
efficiency

### Performance characteristics of EM Mills.

Comparison of EM Mill performance characteristics when used with different drum cooler sizes.



By matching the plant's ambient temperature with the EM Mill throughput desired, the correct rotary drum cooler size is easily determined.

## Efficient cooling solutions

Expert knowledge  
and project  
management at  
every stage

Alongside the EM Mill calcining unit, Claudius Peters supplies a full range of calcination technology for the production of stucco plaster, including:

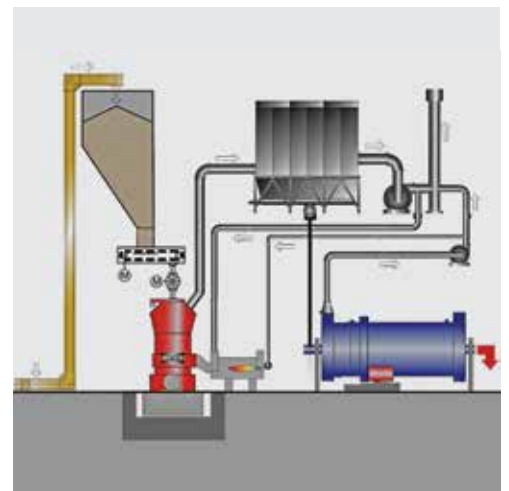
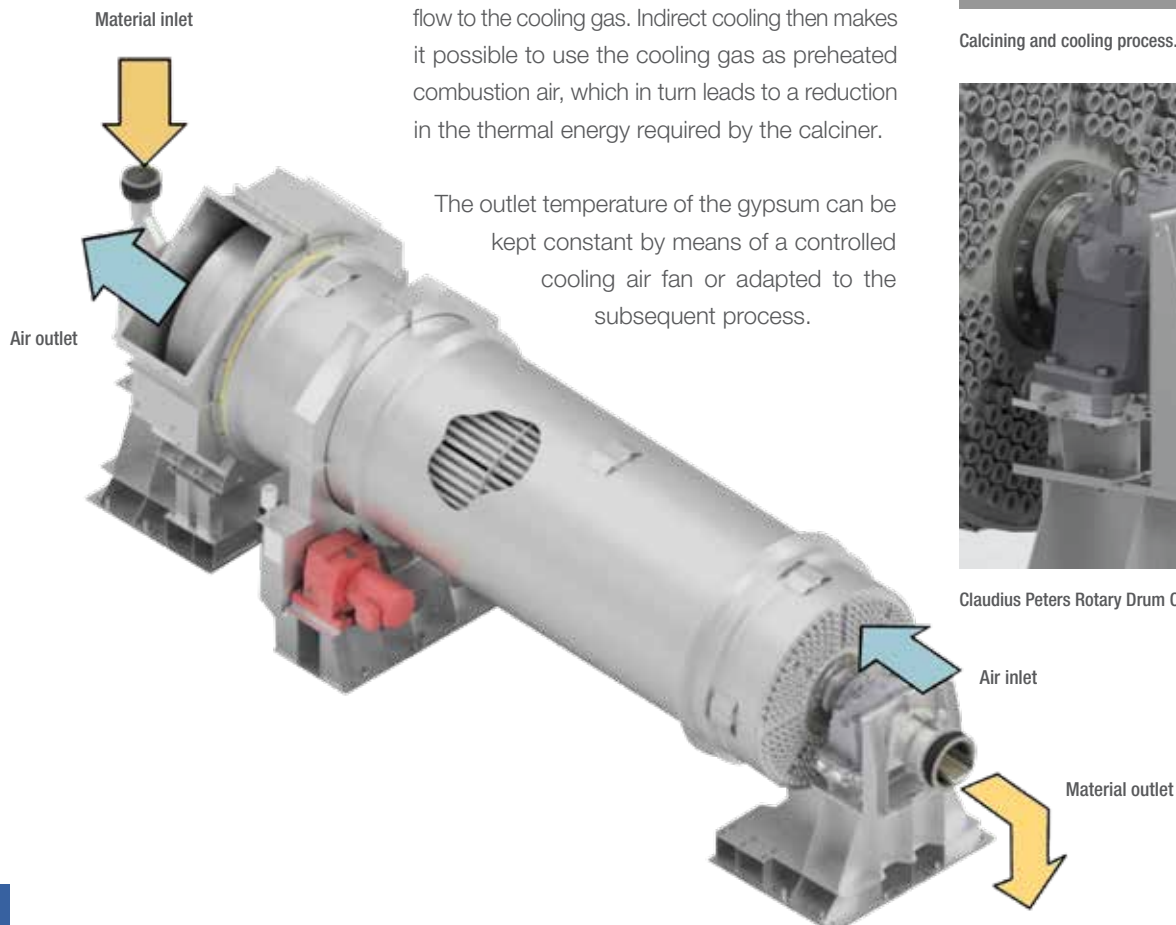
- Mill feeding
- Hot gas generators
- Filter technology
- Gypsum coolers
- Fans
- Transport technology

Claudius Peters' transport technology and cooler components, including its state-of-the-art Drum Cooler 2.0 which leads the industry for efficiency and low maintenance costs, can be produced in a size to precisely match the required throughput.

### Cooling process

When cooling the hot gypsum is fed in counter-flow to the cooling gas. Indirect cooling then makes it possible to use the cooling gas as preheated combustion air, which in turn leads to a reduction in the thermal energy required by the calciner.

The outlet temperature of the gypsum can be kept constant by means of a controlled cooling air fan or adapted to the subsequent process.



Calcining and cooling process.



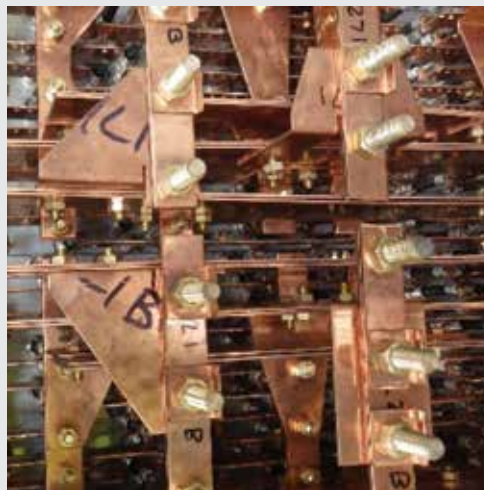
Claudius Peters Rotary Drum Cooler 2.0.

# energy saving solutions

## Innovative, modern technologies

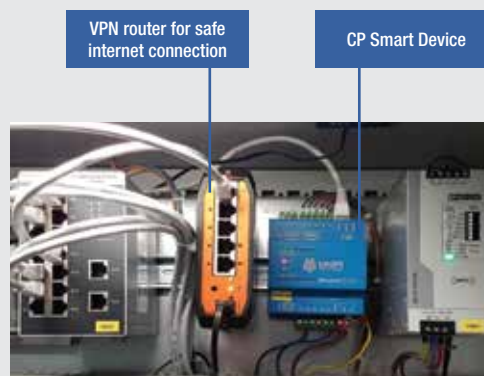
The use of the most modern calcination technologies in connection with many years' experience in the field of stucco plaster production and constant optimization of the process technology enables Claudius Peter to offer future-oriented and energy-optimized solutions.

Our product portfolio includes entirely electrically operated calcining plants where the maximum utilization of waste heat reduces CO<sub>2</sub> emissions as standard. Claudius Peters has a proven track record in developing these plants with throughputs of more than 12 t/h. Special, multi-stage hot gas generators can be utilized, as an alternative to liquid or gas fuels and are especially suited to countries with low electrical energy costs.



Electrical air heater.

In addition, the consistent use of innovative digital technologies, from the initial project design phase right through to post-commissioning online services, underlines our commitment to the environment.



VPN router for safe internet connection

CP Smart Device

Claudius Peters digital solutions.

Efficient,  
environmentally  
friendly systems at  
a lower cost

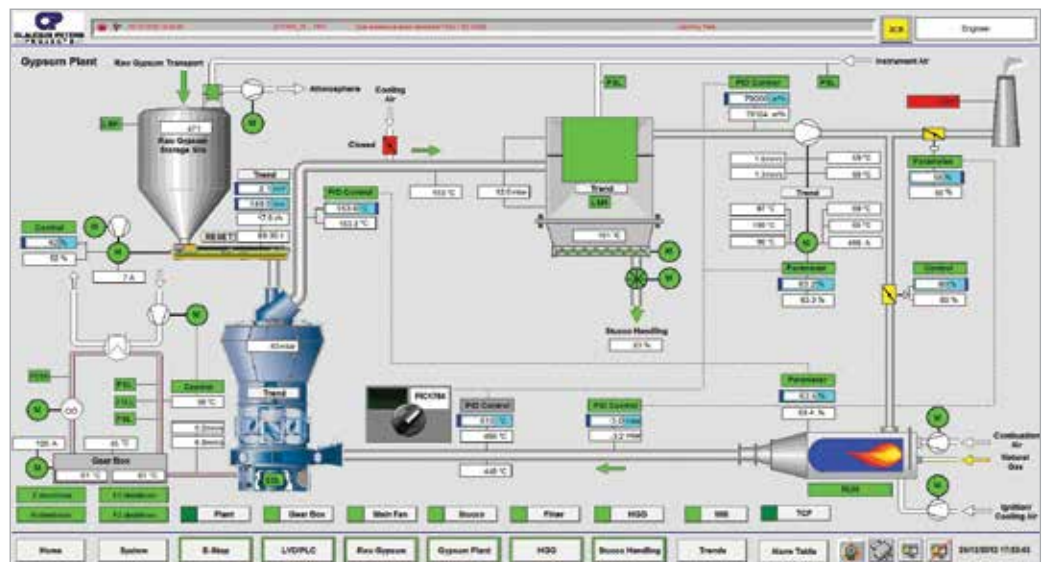


# unrivalled design expertise

## Exceptional skill and experience

Expert knowledge  
and project  
management at  
every stage

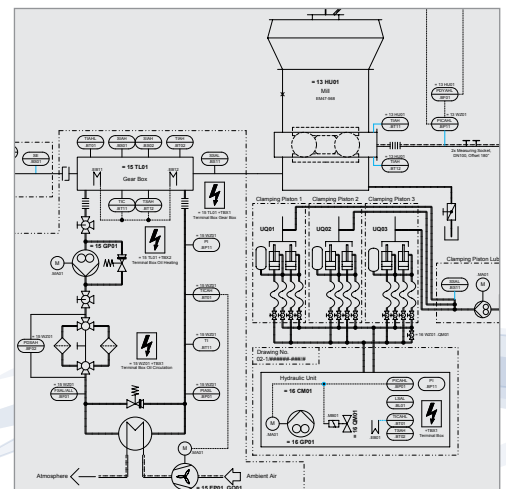
Claudius Peters provides teams of highly qualified and experienced electrical engineers to implement control & process technology and carry out complete electrical planning. This enables the completion of such complex tasks as the planning of brownfield plants in existing facilities, with existing technology.



With gypsum plasterboard production heavily dependent on critical factors such as residual crystal water, grain distribution and stucco plaster water content, product quality is always one of Claudius Peters' primary concerns.

Optimized and automated process control, based on knowledge gained over decades of operation in calcination and grinding technology, are key considerations in the design of every Claudius Peters plant.

In every aspect of plant planning, Claudius Peters' engineers utilize Engineering Base, 3D as well as internally developed design programs alongside all the very latest technologies, as standard.



Process technology electrical engineering solutions.



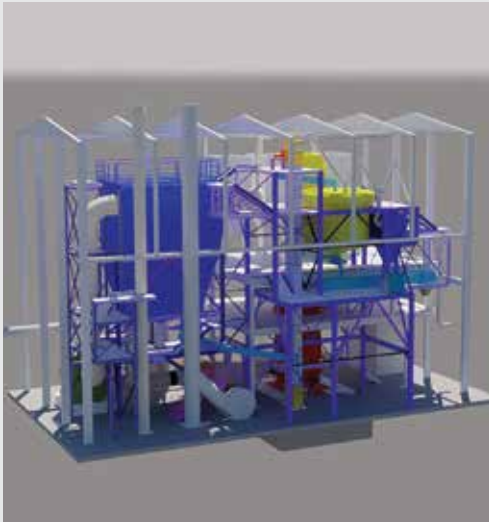
## Brownfield sites

As an EPC contractor, Claudius Peters has the capability to plan, construct, assemble and commission complete plants, in conjunction with its electrical engineering and order processing technical departments.

---

The experience to upgrade and maximize existing plant

---



3D design implementation for brownfield sites.

### Brownfield site upgrades

When converting from synthetic gypsum to natural / recycled gypsum, existing infrastructure or components can be used. Our experts record the structural conditions on site and analyze the existing processes. In this way, extensions and conversions can be realized precisely, on schedule and at optimized cost. In fact, several plants across Europe have already been successfully converted without major disruption to downstream processes.



Claudius Peters turnkey gypsum plant.



Claudius Peters transportation systems.

# PACPAL packing & palletizing

Precise & clean, individual & reliable

---

Modular design  
and integrated  
systems for efficient  
operation

---

A large proportion of the most powerful packers and palletizers in use worldwide today come from Claudius Peters. In addition to their outstanding performance, customers appreciate the ease with which modules or complete lines can be integrated with existing systems.

## **PACPAL Roto Fill**

Roto Fill is the brand name for Claudius Peters rotary packers. They are available with up to 16 spouts, depending on the desired packing capacity and the space available.

## **PACPAL Palletizer**

PACPAL palletizer systems from Claudius Peters have proven themselves worldwide as efficient solutions for handling building materials and other products. The range includes the PSH and PSU type palletizers.

## **PACPAL packing & palletizing plants**

Comprising either standard control technology or comprehensive, automatic scheduling systems, all Claudius Peters production lines, loading lanes and turnkey material logistics solutions are carefully tailored to meet the needs of our customers and the requirements of the material.

Claudius Peters turnkey solutions encompass every element required in modern packing plants and all modules can be integrated quickly and easily utilizing technology you can trust.



8-spout rotary packer.



High Inlet Palletizers can process up to 5,000 bags/h.

**PACPAL**  
CLAUDIUS PETERS

- **Bucket elevators**
- **Vibrating screens**
- **Pre-bins with fill level indicators**
- **Feed venting systems**
- **Automatic bag applicators and empty bag transportation**
- **Bag discharge, transport and removal systems**
- **Check weighers**
- **Bag rejection**
- **Spillage return systems**
- **Dedusting filters**
- **Distribution system**

# Technikum

## Unique research and testing facility

Claudius Peters continues to remain at the forefront of bulk materials handling and processing technologies by maintaining vigorous research, development and test programs at their Technikum (Technical Center) in Germany.

The generously equipped Claudius Peters Technikum, features a fully functioning calcining plant and raw materials laboratory. This enables collaborative testing to assure customers that our process technologies will meet their precise needs and also the production of larger product batches, where these may be required for further analysis or development.

Our trial and testing facilities ensure that every new application is fully evaluated before proceeding to full-scale plant. We also test the mechanical properties of new products. With our laboratory and our test center we have the capability to identify and analyze any problems our clients are experiencing in their plants and provide them with the right solution.

---

Innovation and know-how to drive efficiency even further

---



### Grinding tests with a real vertical grinding unit

With our grinding and calcining station we have a semi-industrial scale installation in-house, giving us the opportunity to test new products and produce new grain sizes.





**Claudius Peters Projects GmbH**

Schanzenstraße 40

DE-21614 Buxtehude, **Germany**

T: +49 4161 706-0

E: [projects@claudiuspeters.com](mailto:projects@claudiuspeters.com)



ALUMINA HANDLING SYSTEMS  
ALUMINIUM PROCESSING  
CALCINING  
CONVEYING TECHNOLOGY  
COOLING  
DISPATCH  
DOSING  
DRY BLENDING  
DRYING  
GRINDING  
PACKING  
PALLETIZING  
PNEUMATIC CONVEYING  
PULVERIZED FUEL SUPPLY  
SILO SYSTEMS  
STOCKYARD SYSTEMS  
MARINE POWDER HANDLING  
TURNKEY PROJECTS

## We know how

**[claudiuspeters.com](http://claudiuspeters.com)**

**Subsidiaries:**

BRAZIL | CHINA | FRANCE | GERMANY | INDIA | ITALY | ROMANIA |  
SINGAPORE | SPAIN | UNITED KINGDOM | UNITED STATES

**Sales & Service Partners:**

WORLDWIDE REPRESENTATION



A Langley Holdings Company

CP Gypsum Technik (GB) 03/2021 / Issue 3. Due to a policy of continued improvement, we reserve the right to change any specification without prior notice. ERRORS & OMISSIONS EXCEPTED. Printed on a Manroland R700 press.

