



CLAUDIUS PETERS

A microscopic view of numerous irregular, light-colored cement particles of various sizes scattered across a dark blue background. The particles have a rough, crystalline texture.

Cement **TECHNIK**

We know how

cement technik

About

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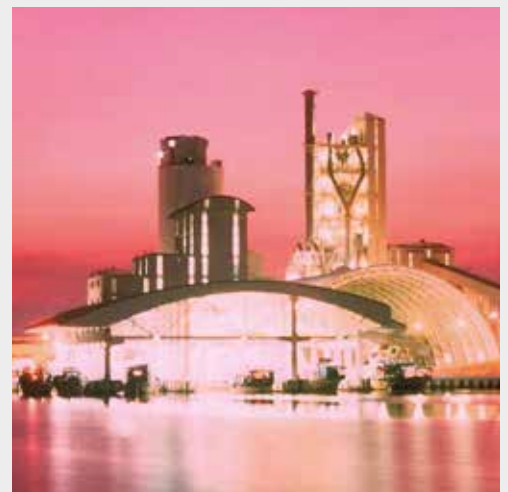
Since its founding in 1906, Claudius Peters has become one of the world's most respected engineering houses and an innovative world leader. Its German engineering excellence continues to set benchmarks for the design, manufacture and commissioning of materials handling and processing systems for the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

From conception and installation through to commissioning and after-sales support, Claudius Peters provides world-class service to the world's biggest bulk materials producers.

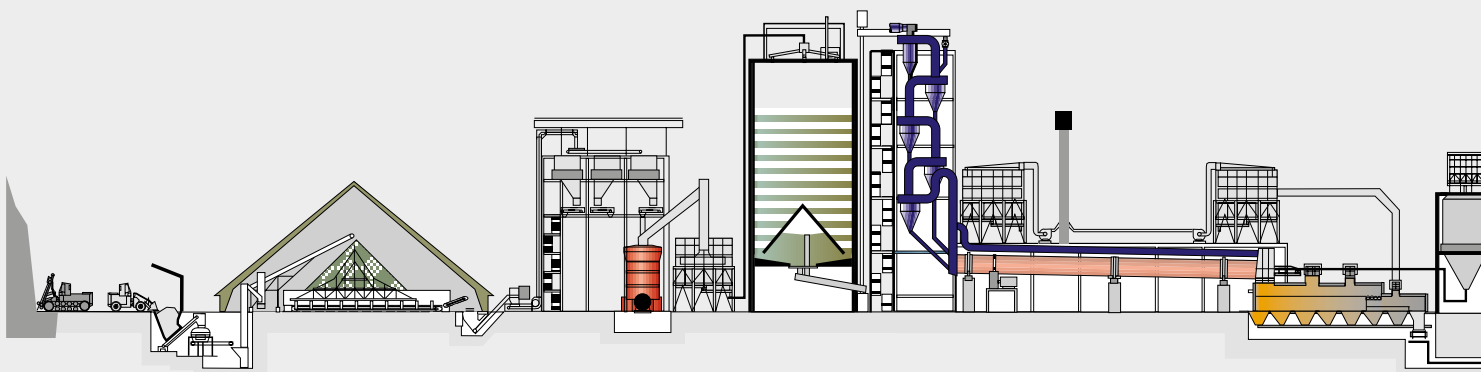
The Claudius Peters Group GmbH is headquartered in Buxtehude near Hamburg, Germany, with regional offices in the Americas, Asia and Europe.



Claudius Peters' headquarters, Buxtehude, Germany.



Claudius Peters packing solution installed in cement plant, Vietnam.



Technology you can trust

Claudius Peters' reputation in cement technology comes from many years of technical experience, combined with continuous product development in its Technikum (Technical Center).

Here, products developed by Claudius Peters – including hydraulic drives and roller crushers for clinker coolers, expansion chambers for silos and reduced power consumption pneumatic conveying systems (FLUIDCON) – have become standards in the cement industry.

The Claudius Peters Technikum is a state-of-the-art testing and research facility, where the analysis of approximately 13,000 different kinds of materials assists in the design of Claudius Peters' equipment and processes, helping clients identify the optimum operating parameters for their specific requirements.

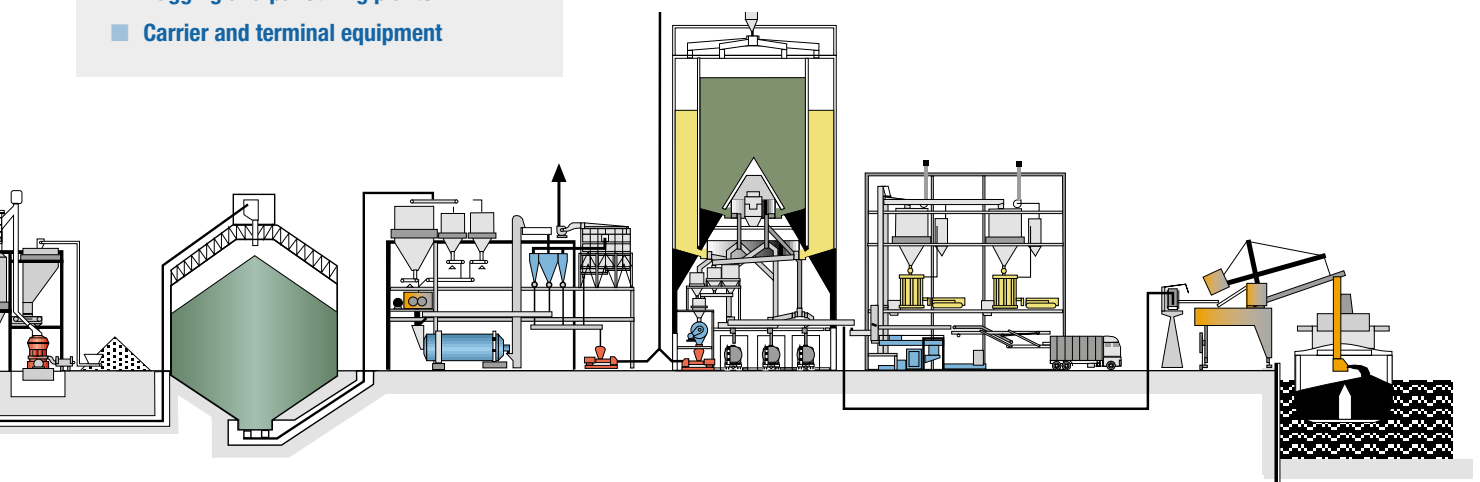
State-of-the-art
test facilities for
optimizing product
development

Claudius Peters offers a wide range of equipment and is the ideal partner in cement technologies:

- Raw material storage and blending beds
- Storage and homogenization of raw meal
- Raw meal feeding to pre-heaters
- Coal grinding, storage, conveying and dosing systems
- Clinker coolers
- Pneumatic conveying and storage systems
- Mixing systems
- Loading and unloading systems
- Bagging and palletizing plants
- Carrier and terminal equipment



Claudius Peters Technikum.



stockyards



The challenge is to deliver consistent cement quality to a variety of clients and building sites. Claudius Peters' expertise provides the equipment to produce an optimum, homogeneous raw material for processing.

Acting as a one-stop supplier, Claudius Peters can provide everything for stockyards and blending beds, and mixing silos for raw meal.

Optimized design and homogenizing in the blending bed reduces the required degree of blending or homogenization in the mixing silo, minimizing operating and energy costs while still maintaining reasonable investment costs.

Claudius Peters stockyards are available for limestone, marl, mix-additives for raw meal and cement and for primary and secondary solid fuels such as hard coal and wood chips.

The product range for the Claudius Peters PHB SOMERAL stockyard equipment is:

- **Portal, semi-portal and side reclaimers**
- **Bridge reclaimers**
- **Travelling and slewing stackers**
- **Circular and longitudinal stockyards**

For optimum mixing, our stackers and reclaimers can be equipped with an online analyzer as well as our SmartStack™ software.



Stacker.



Limestone bridge reclaimer.

mixing silos

Used in the homogenization of raw meal, Claudius Peters mixing silos (MC Silos) are characterized by a high blending factor achieved by a unique mixing chamber with overflow pipe.

The silos' capacities can be optimized in combination with the stockyard equipment from a capacity of 2,500 tonnes to 60,000 tonnes.

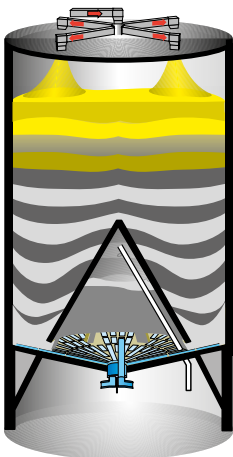
In addition to the new Claudius Peters MC-Silos, our unique expansion chamber means that older systems with a flat bottom design can be modified and optimized to achieve a continuous mixing operation, achieving higher discharge qualities and reduced energy consumption.

All raw meal mixing silos can be combined with Claudius Peters kiln feeding to ensure homogeneous feeding of the kiln pre-heater. During the continuous, pulsation-free pre-heater feeding by airlift, bucket elevator or directly from the control bin, the raw meal metering device is calibrated online and the requirements of the kiln are met without interruption to kiln feeding.

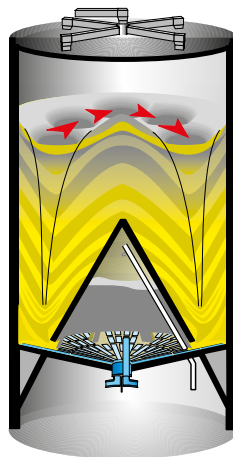


Multi-flow feeding.

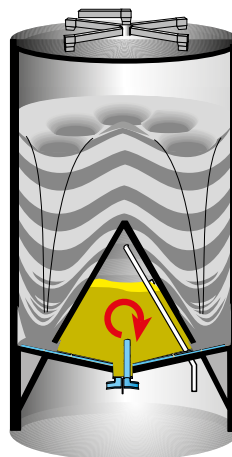
1. **Raw meal of different qualities stored in layers**



2. **Raw meal will be discharged from several layers into the mixing chamber**



3. **Raw meal will be mixed in mixing chamber and discharged via an overflow pipe**



coolers

Flexible cooling
solutions
suitable for any
rotary kiln system

The Claudius Peters clinker cooler can be combined with any rotary kiln system on the market. The cooler's reliable operation can easily be adapted to the kiln line's requirements.

This applies not only to new cooler installations but also to conversions and capacity increases to existing kiln cooler systems.

Traditionally, the main function of the clinker cooler was to cool the clinker from $\sim 1400^{\circ}\text{C}$ to $\sim 100^{\circ}\text{C}$. But for some time now, the focus has been on increasing the heat recuperation to reduce fuel costs. Greater environmental awareness means that it is more important than ever to utilize the remaining heat and optimize the use of alternative fuels. Also the focus has shifted to longer lifetimes and higher availabilities.

Whatever your main focus, we can offer a customized solution.



ETA Cooler.

Claudius Peters clinker cooling solutions:

- New green field systems with the latest type of coolers using the moving floor principle to transport the hot clinker: the ETA Cooler
- Replacing old coolers with the ETA Cooler or the traditional grate cooler with the well proven CSS supports
- Modifying existing coolers with the Claudius Peters HE-Module (statical inlet) or CSS grate for increased capacity or optimizing operation and energy consumption

In recent years, Claudius Peters has initiated such cooler developments as the hydraulic drive, the roller crusher and the moving floor principle. These have become standard components in today's cooler technology.



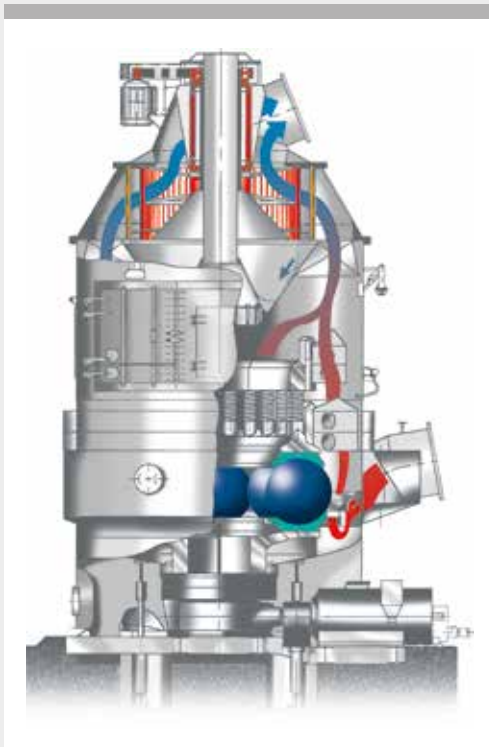
Kiln hood Claudius Peters ETA Cooler.



Claudius Peters ETA Cooler.

grinding

Claudius Peters is the perfect partner for cement plant operators requiring solid fuel handling with stockyard equipment, mechanical transport to the grinding plant, grinding of fuels (e.g. hard coal, pet coal, sewage sludge, etc), storage, pneumatic conveying, dosing of fines and delivery to the combustion process burners.



EM110-7115 with dynamic classifier.

The Claudius Peters EM Mill has been installed in more than 500 coal grinding mills. Its grinding elements are balls that move freely between the grinding rings and remain round throughout their whole service life. This guarantees constant throughput capacities and fineness for up to 20,000 hours.

Claudius Peters has the expertise to install grinders in different process conditions within a pressure-shock resistant design or an inert process operation. By using the most cost-efficient energy sources (cooler exhaust gas, pre-heater gas or hot gas generator) for drying the fuel, we can ensure the client's process is always fully optimized.



Claudius Peters EM Mill.



Coal grinding plant.

pneumatic conveying



Claudius Peters pressure vessel system.



Claudius Peters X-pump.

To identify the best pneumatic conveying solution, Claudius Peters offers a wide range of services including the examination of bulk solids, selection of the appropriate conveying system as well as the surrounding auxiliary components.

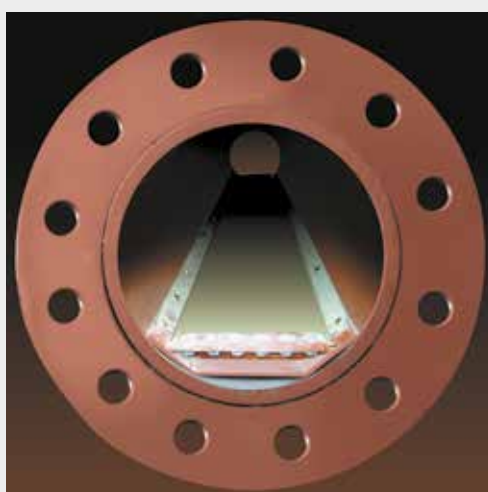
With more than one hundred years' experience and continuous development of pneumatic conveying technology, Claudius Peters is the ideal partner of choice for pneumatic conveying systems – handling any type of material – from primary or secondary raw materials to fuels or cement of any kind.

Claudius Peters' ongoing product development in this sector has led to several unique products such as the Claudius Peters X-Pump and the FLUIDCON system. These and other systems can be integrated into new or existing cement plant installations.

Claudius Peters standard pneumatic conveying systems

- **Aeroslide systems**
- **Pressure vessel systems**
- **X-Pump systems**
- **Airlift systems**
- **Blow-through feeder systems**
- **Jet feeder systems**

Claudius Peters has the know-how to realize long-distance conveying lines. Beside a 5 km test line installed at our Technical Centre in Buxtehude we will be installing a 1.2 km line for one of our customers in Indonesia.



FLUIDCON system.



Claudius Peters storage and pneumatic conveying system.

silos

With a long tradition in bulk material handling as well as minerals storage, Claudius Peters is also the ideal partner for your other storage needs. The Claudius Peters Technikum can evaluate all types of bulk materials to establish the best silo design for any application.

Claudius Peters also has the expertise to modify existing silos to improve the discharge and energy consumption of existing operations. We can also offer different designs for special materials or smaller storage capacities.

The increased demand for mixed cements can be met with the special Claudius Peters know-how in silo technology with integrated mixing plants.

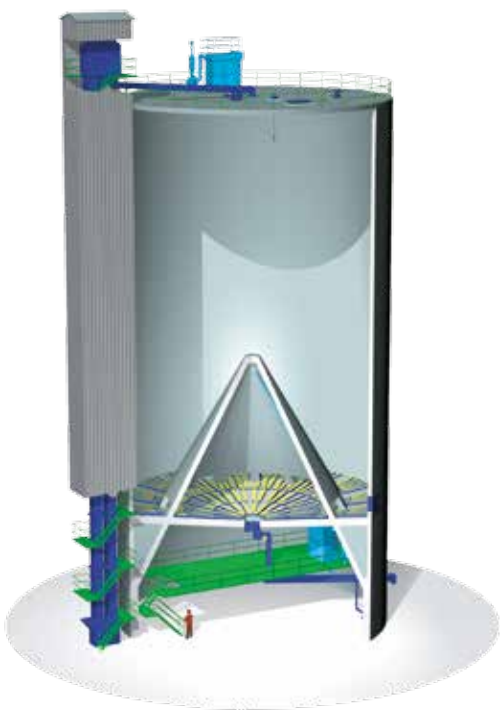
Claudius Peters silos offer:

- Capacities up to 60,000t
- Diameters up to 30m
- Discharge capacities up to 1,000t/h
- Reclaim rates 99% and higher

Claudius Peters,
the ideal partner for
storage solutions



Claudius Peters CC silo bottom.



EC storage silo.



Claudius Peters cement storage and loading facility.

packing

A customized
packing and
palletizing system
to meet any
requirement

Cement dispatch has to fit into process operations without any disruption to production. Whether dealing with bulk or bagged cement, Claudius Peters has the complete solution.

By taking the complete plant into account and considering the equipment as well as the technical concept, Claudius Peters can develop a customized packing and palletizing system that meets any requirements perfectly.

Claudius Peters manufactures all of its key packing plant equipment in-house, from the feeding system, packing machine and bag applicator to the complete bag discharge and palletizing equipment, including truck loaders.

Any other parts, such as de-dusting equipment, are seamlessly integrated into the solution from well-known suppliers.

Whether you need a rotary packing machine or an inline packer, Claudius Peters will deliver the correct solution. The packing equipment has been designed in a modular way so that its capacity can be readily increased and the plant can easily be adapted to any new demands.



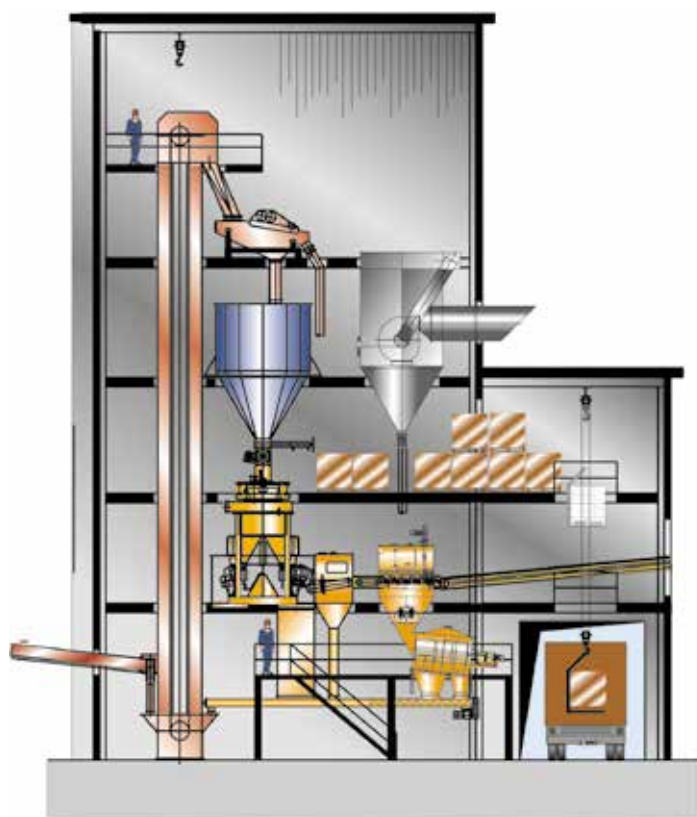
Truck loader.



12-spout packer.



Bulk loading.



Rotary packer with automatic bag applicator.

loading & unloading

Cement trading is becoming increasingly important in the world and now has to be carried more frequently into emerging markets or conurbations.

For these requirements, Claudius Peters offers a full package for dispatch terminals including storage silos and truck, wagon or stationary ship loading solutions.

We also offer solutions for the receiving terminal with truck or wagon unloading as well as all the necessary cement distribution equipment such as silos, truck loading, packing and palletizing equipment.

For cement transport across water, Claudius Peters can design equipment for self-unloading carriers with panel aeration and special pneumatic discharge equipment such as the X-Pump or HP-CONTANK.

The advantage of this all-in-one approach is that all of the equipment readily integrates, enabling reductions in power consumption to be easily achieved.



Jurong Port, Singapore: silo, packer and palletizer.



MV Helvetica on voyage.



Brisbane, Australia: 26,000 t silo.



HP Container vessel.

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PULVERIZED FUEL SUPPLY
SILO SYSTEMS
STOCKYARD SYSTEMS
ALUMINA HANDLING SYSTEMS
MARINE POWDER HANDLING
TURNKEY PROJECTS

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We know how

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