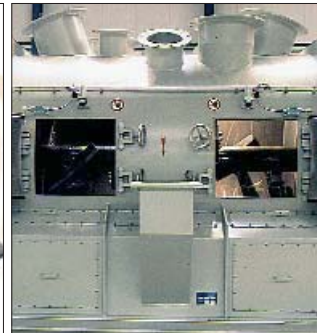




CLAUDIUS PETERS
TECHNOLOGIES

Technik mixing technology



Technology you can trust...

Claudius Peters... Proven Mixer Expertise

Claudius Peters Technologies GmbH, Germany and Claudius Peters Technologies S.A., France are part of the Technologies Division of Claudius Peters Group GmbH, headquartered in Buxtehude, near Hamburg, offering technologies in the field of materials handling and processing, providing turnkey and semi-turnkey systems to a wide range of industries. Claudius Peters Group GmbH is a wholly owned subsidiary of Langley Holdings plc, a privately controlled UK engineering group, with regional offices in the Americas, Europe, China and the Far East.

The mixing of different bulk material components is becoming an increasingly important process particularly in the building materials industry. Plant operators worldwide turn to Claudius Peters as a partner able to deliver solutions from single mixers to the planning and engineering of complete systems.

When experience counts

Whether you are looking for a continuous mixing process or batch operation, we can provide both systems. Whatever process is preferred, the mixing quality is the decisive factor.

How will you receive a customised finished product? How will the system be equipped and engineered to meet your requirements?

Working with clients, our Technical Centre specialists will find solutions to these and other questions.

We have the latest pilot systems and a database holding information on the results of more than 12,000 bulk material examinations.



Mixing tests in the Technical Centre

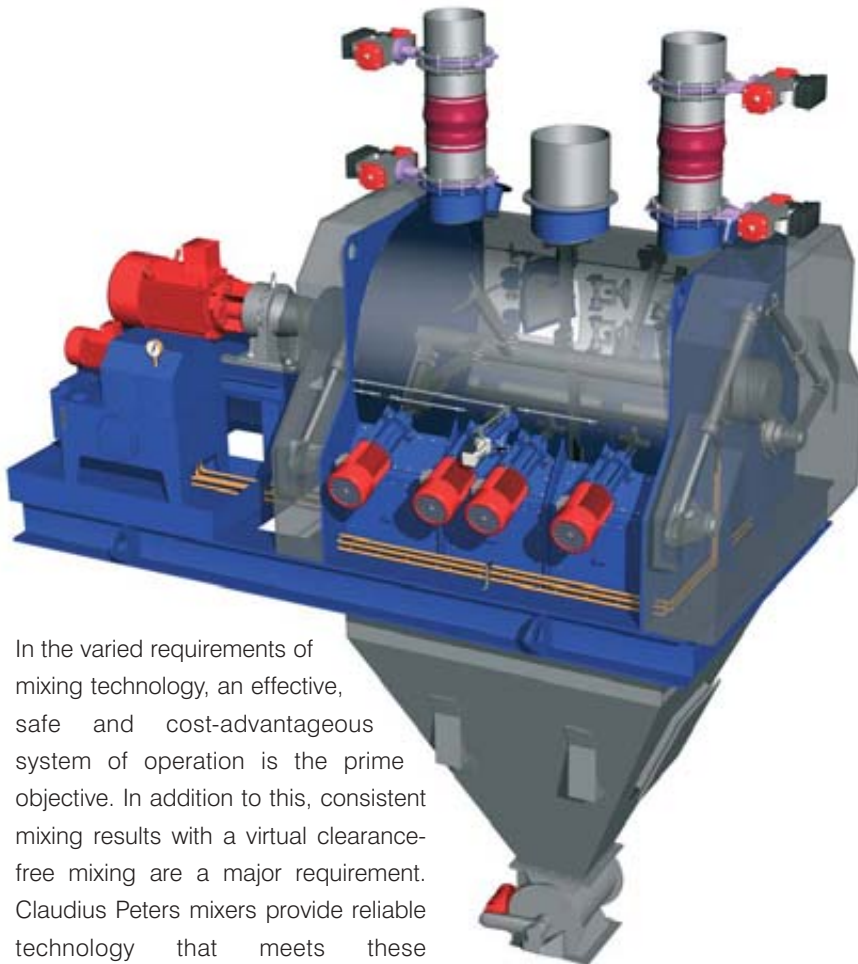
For example, conducting field tests of mixing times, qualities and the use of different basic materials with a mixer will generate all the basic information to provide an investment decision.



Building material mixing plant for up to 180t/h



Our Technology sets everything in motion



In the varied requirements of mixing technology, an effective, safe and cost-advantageous system of operation is the prime objective. In addition to this, consistent mixing results with a virtual clearance-free mixing are a major requirement. Claudius Peters mixers provide reliable technology that meets these requirements to a high degree, namely mechanically generated fluidised bed. With this an optimum mixing quality is

guaranteed by a mixing tool arrangement on a horizontally rotating shaft that is specifically designed to suit the product.

This mixing principle is used throughout the entire inner mixing drum achieving a very high quality within the entire mixer volume.

High Speed Blades for the finished product

For the addition of dyes and additives, the mixer is equipped with blades moving at a speed of up to 3000 min⁻¹. This high speed prevents agglomeration and allows the use of fluids and pigments.

The following blades are used:

- Tulip knife for products with a high abrasion factor, such as coarse dry mortar
- Multi-stage knife for materials with a low abrasion factor, such as coloured cement mixtures

Tough systems

The systems are required to work hard in practice, as permanent operation is an endurance test. Differently mixed products require the selection of different materials. Thus best possible results regarding the tool life are achieved, e.g. by using carbide steel or carbide steel lining material in the mixing drums, or by using special cast or welded carbide steel for mixing tools.



Tulip knife



Multistage knife

Batch operation...

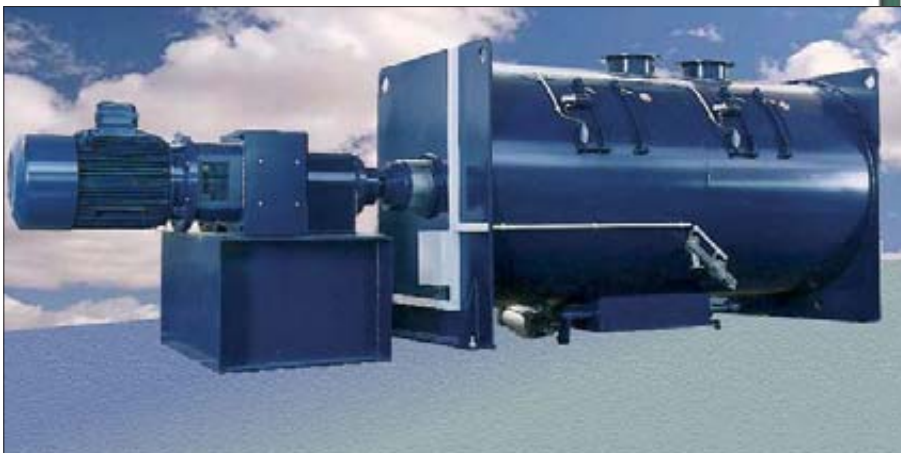
The batch operation has invariably proven to be worthwhile if

- More than 3 raw materials are used
- A lot of different recipes are produced
- A flexible change of the recipe must be carried out frequently
- Mixing times are kept variable according to type and quantity of the material
- It is necessary to inspect and correct single charges.

According to our experience approx. 70% of the mixing processes are carried out in batch operation achieving a capacity of up to 250t/h.



Mixing system for batch operation



Batch mixer HTC 10000

Turbulence mixer HTC - a mixture of advantages

The turbulence mixer HTC is in the centre of the process. With a gross volume of 140 - 12,000 litres it can be designed to meet your requirements. In most cases the mixer is supplied via a bin weigher system with variable flow control facilities connected in series.

Flexibility as a concept

This guarantees a very high dosing precision even for the smallest quantities. After the mixing process, the mixture is supplied to a subsequent bin that is emptied via a rotary feeder or conveying aeroslides.

The turbulence mixer HTC is delivered on a base frame ready for operation, so that connection to the power and compressed air supply are the only requirement.

Customised drive

Only people who have the knowledge of the practical operation and the behaviour of raw materials exactly can provide a reliable solution for extreme requirements, for example the drive. Claudius Peters offers you the right concept for all applications:

- Hydraulic and electric drives
- Full-load start up capability
- Use in hazardous areas
- Mixing sensitive bulk material



Mixing tools

Fast change of products guarantee pure products

To meet the different requirements of your clients, a mixer must be designed for a fast changeover from one product



Assembly of a batch mixer with double-discharge flap system

to another while guaranteeing that the products are absolutely pure. The turbulence mixer is also suitable in these applications. In addition to the usual discharge spouts and flaps, we can offer you our double-discharge flap system that allows discharge of up to 99.9% of the mixer gross volume. Depending on the case of application, hydraulic or pneumatic opening systems are used. Both systems have one feature in common: they are effectively sealed.

In addition, highly efficient de-dusting concepts guarantee absolutely pure products and an environmentally friendly production. Please contact us for an individual consultation.



Batch mixer HTC 6100

Continuous mixing process... time after time with increasing quality

Continuous mixers are used where: -

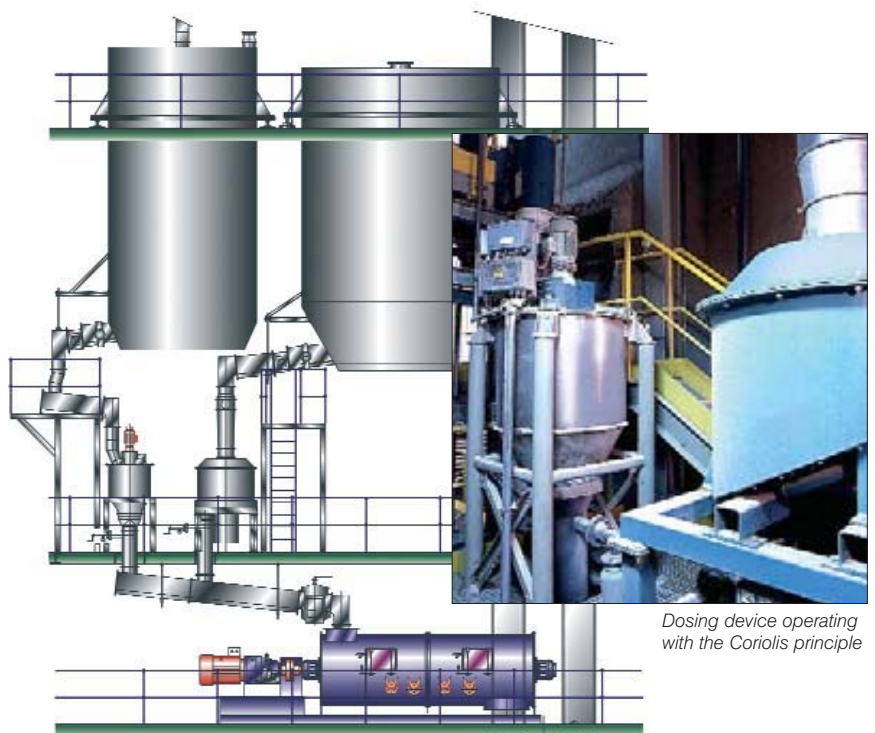
- A low space availability plays an important role
- A high throughput is required while the product variety is low
- Mixtures of 2-3 components are produced

A throughput of 200 - 500t/h is common with this process.

The continuous mixer HTK - High efficiency with a high quality

Claudius Peters offers the continuous mixer HTK with a gross volume of 300 - 20,000 litres especially for this range of application. Dosing devices individually designed according to efficiency and precision are used for continuous mixer supply. A pneumatic or mechanical conveying system for further transport of the mixed product is directly connected in series to the mixer.

To keep the installation time as short as possible, the continuous mixer is delivered ready for connection on a base frame equipped with a drive.



Mixing system for continuous operation

Dosing device operating with the Coriolis principle

Suitable drive concepts with hydraulic and electric motors facilitate full-load starting.

A constant product quality is also required from the continuous mixing process, although short term dosing variations during the feeding cannot be

avoided at all times. In our continuous mixers HTK, a permanent back-mixing of the products within the mixing chamber is carried out to compensate feed variations: Some parts of the mixed material are moved against the conveying flow and thus re-mixed with the subsequent mixed material again because of the special arrangement of the mixing tools.

The residence time of the material in the mixer is on the one hand determined by the mixer size and on the other by the variable height adjustment of the separating weir at the mixer outlet.



Continuous mixer HTK 12000

Precise results for even the smallest mix



Laboratory mixer



Technical Centre mixer

An increased market success by means of verified mixtures! For this, tests and quality assurance are invaluable. You could not choose better than suitable compact machines from Claudius Peters range.

Our laboratory mixers are designed with features such as gross volumes from 3 - 30 litres facilitating different applications in science, technology and material testing.

We would advocate that within your company, test mixers with a gross volume of 60 - 140 litres are ideal for developing new products and guaranteeing the quality standards.

Preliminary tests with these machines will deliver data that is applicable to your production plant avoiding unnecessary or wrong decisions. This means

- Optimisation of mixing times
- Recipe determination
- Usability test for new materials

Of course you can carry out all tests in the Technical Centre together with our experts and we also provide you a text mixer on loan if required. We can definitely offer the solution for your requirements.



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