

Mill Shell Lining



**CHRISTIAN
PFEIFFER**

Shell lining from the process expert

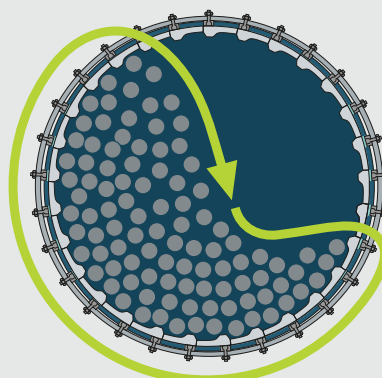
The name Christian Pfeiffer has stood for expertise in grinding and separation processes since 1925. With the know-how gained from decades of experience in grinding technology, our technicians are continuously working on the further development and improvement of mill shell linings.

No grinding process is alike. Every component is precisely selected to maximize the performance of the grinding process. Only by taking into account all process conditions, the plant efficiency and production quality can be increased to a maximum. This is the strength of Christian Pfeiffer.



Groundbreaking lifter profile

The mill shell lining is designed to lift grinding media significantly higher compared to conventional shell linings to generate optimum impact energy.

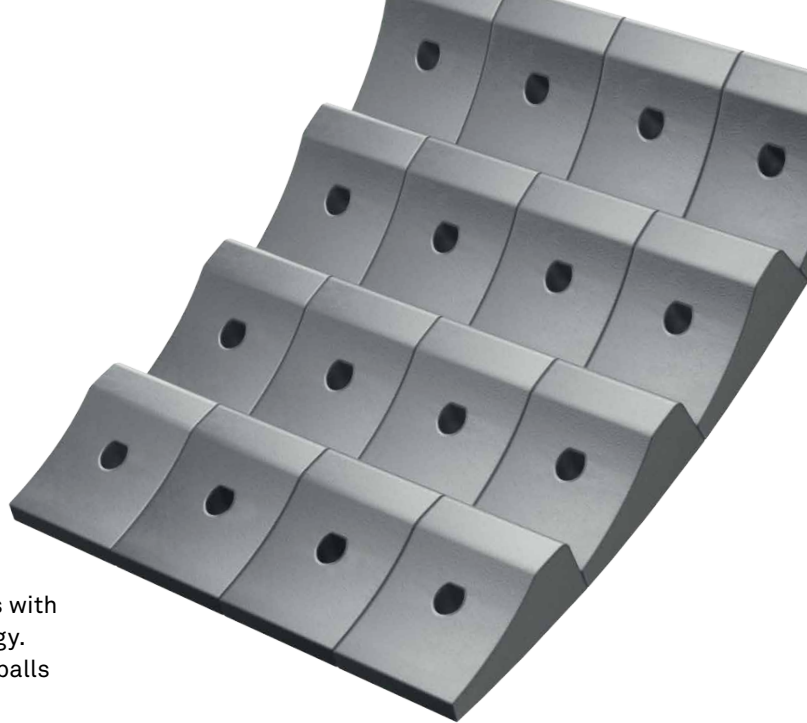


Mill shell lining for dynamic grinding movements

Progressive activator lining

More impact energy in the first grinding chamber

The activator lining transports the grinding balls upwards with minimum slippage, thus producing optimum impact energy. Controlled wear of the shell lining occurs as the grinding balls roll over the lifters.



Classifying lining

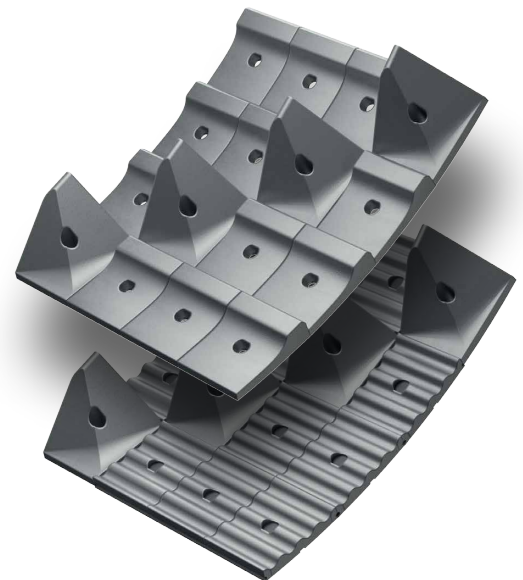
Efficient particle size reduction in the 2nd grinding chamber

The already pre-ground material is ground finer in the 2nd chamber primarily by pressure and friction. The conical classifying lining plates together with wave or progressive activator plates keep balls with the largest diameter at the beginning, and smaller balls at the end of the grinding path.

Compact spiral lining (CSL)

Designed for long 2nd grinding chambers or single chamber mills

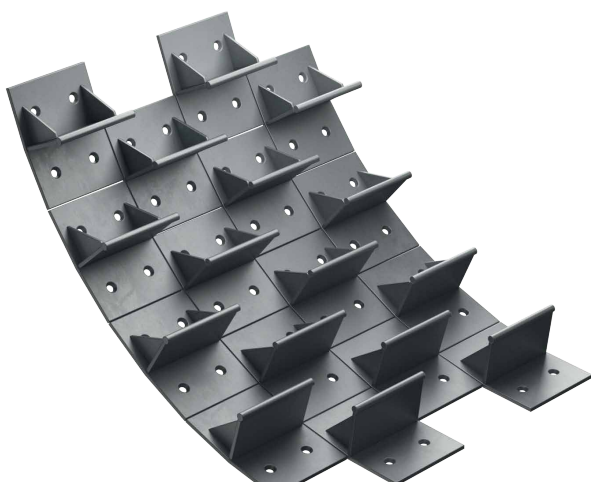
This spiral lining has a high number of activator or wave plates, which optimally sets the ball charge in motion. The plow plates increase the energy input. A certain moderate sorting effect is produced, which improves the ratio of the grinding material size to the grinding ball size. A completely drilled mill tube is necessary for this.



Drying chamber elements

For flanged or integrated drying chambers

These liner segments are designed for raw mills where the feed material needs to be predried. The variably arranged lifters convey the moist material into the hot gas air stream for effective material drying.



High quality casting process

The dynamics of the grinding media movement in the mill are largely determined by the shape of the mill shell lining.

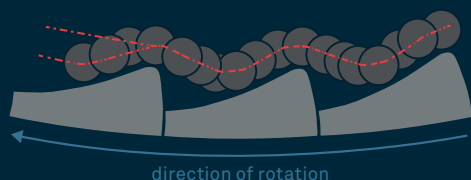
Therefore, the quality of this shell lining is crucial for the performance potential of the grinding process.

We manufacture shell linings that are precisely matched to the objectives of your grinding plant. This high quality casting process allows for very low manufacturing tolerances resulting in precise, dimensionally accurate castings.

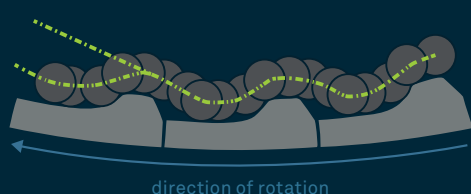
Conventional vs. Christian Pfeiffer

Optimum lifting effect

Conventional plate design



Christian Pfeiffer progressive lifter design



Controlled wear

Due to the intensive activation of the ball charge, the shell lining must be made of a material that has the right degree of hardness and breaking strength. This allows for controlled wear. The shape and function of the shell lining is maintained throughout its service life.

Conventional plate design



Decreasing lifting height from the first hour of operation

Christian Pfeiffer progressive lifter design



Constant lifting height over the entire service life

We have the right
mill shell lining for
your grinding process.
Because every process
is only as **EFFICIENT** as
the sum of its parts.

Christian Pfeiffer worldwide

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More than just grinding and separation:

EFFICIENT PROCESSES

We understand, analyze and understand to optimize the entire grinding process. Thanks to this expertise, Christian Pfeiffer has been one of the technology leaders in the grinding industry for nearly a century.

Visit us at
christianpfeiffer.com



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