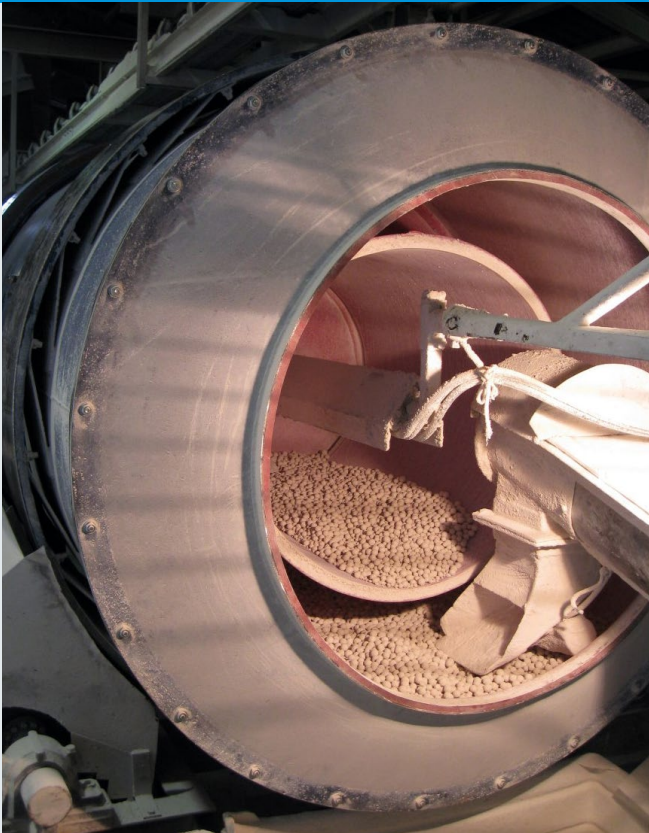


POLPELL Drum pelletiser



Well-rounded

Proven design – reliable operation – homogeneous product

The POLPELL drum pelletiser is a highly specialized aggregate for the **agglomeration of fine-grain materials** that are intended to be processed inside the POLSINT® high-temperature shaft kiln. While the granulation of pulverized materials is typically used for improving materials handling, diligent dosing and reduced hazard potential this application prepares the material to be burned in a bulk. Here a uniform particle size distribution, highest material densities and best flowability properties are required next to mechanical stability of the bulk. This is mandatory to ensure sufficient porosity for the kiln gas to be distributed best inside the bulk.

The design of the POLPELL is both simple, but highly sophisticated to ensure material transport in both directions inside the horizontally arranged drum. The drum system is the best solution to generate almost perfect spherical shapes due to random rolling motion inside the charge.

Fine-grained material, which is fine ground powder, dust or precipitate, is fed into the inlet of the POLPELL pelletiser. Granulation seeds as well as internally recycled pellets are added to the bed of material and water is mixed in. The amount of cold water and the rotational speed of the drum are central influence parameters for the quality of pellets formed. In addition the internal design of the drum is aligned to feed material properties as well as product requirements with respect to uniformness and mechanical stability.

The drum is subdivided into two process segments: In the front section the pellets are formed when seed grains and screen underflow, which are internally recycled, pick up mass through the addition of water and contact with fresh feed while agitated in the material bed. In the rear section mature pellets are discharged as overflow from a spiral type screen. Smaller diameter pellets that have not reached the desired geometry yet pass the spiral screen and are internally returned towards the front end to pick up more mass.

As soon as the number of pellets in circulation decreases, fresh seed material will be fed so that new pellets can develop. Most drum internals are equipped with a rubber lining, which acts as wear protection and provides the necessary friction for the pellet's rotation.

POLPELL Drum pelletiser

Fields of application

Calcined materials, such as alumina or spinel

Dolomite dust (e.g. from off-gas cleaning)

Fine-grained materials

Main features

High pellet density and stability

Uniform and adjustable pellet diameters

Low formation of fine material (low recycle rate during screening)

Considerably lower investment costs compared to a briquetting plant

Low maintenance costs

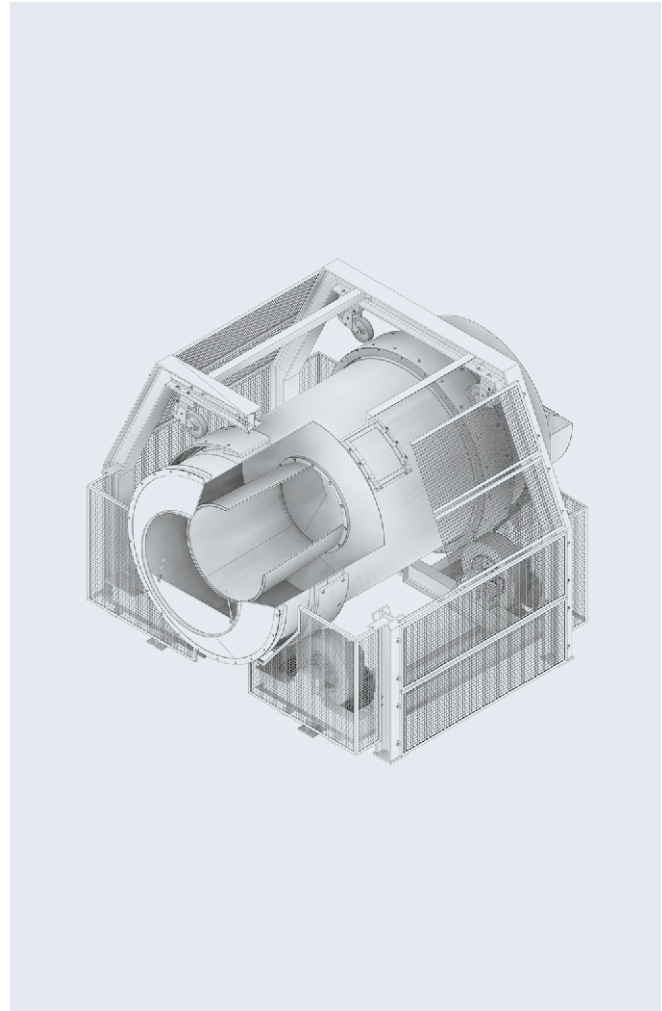
Low power consumption

Only water required as binding agent

Design parameters

Daily output: up to 60 tons

Defined diameters between 10 and 30 mm



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Sales Agent

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