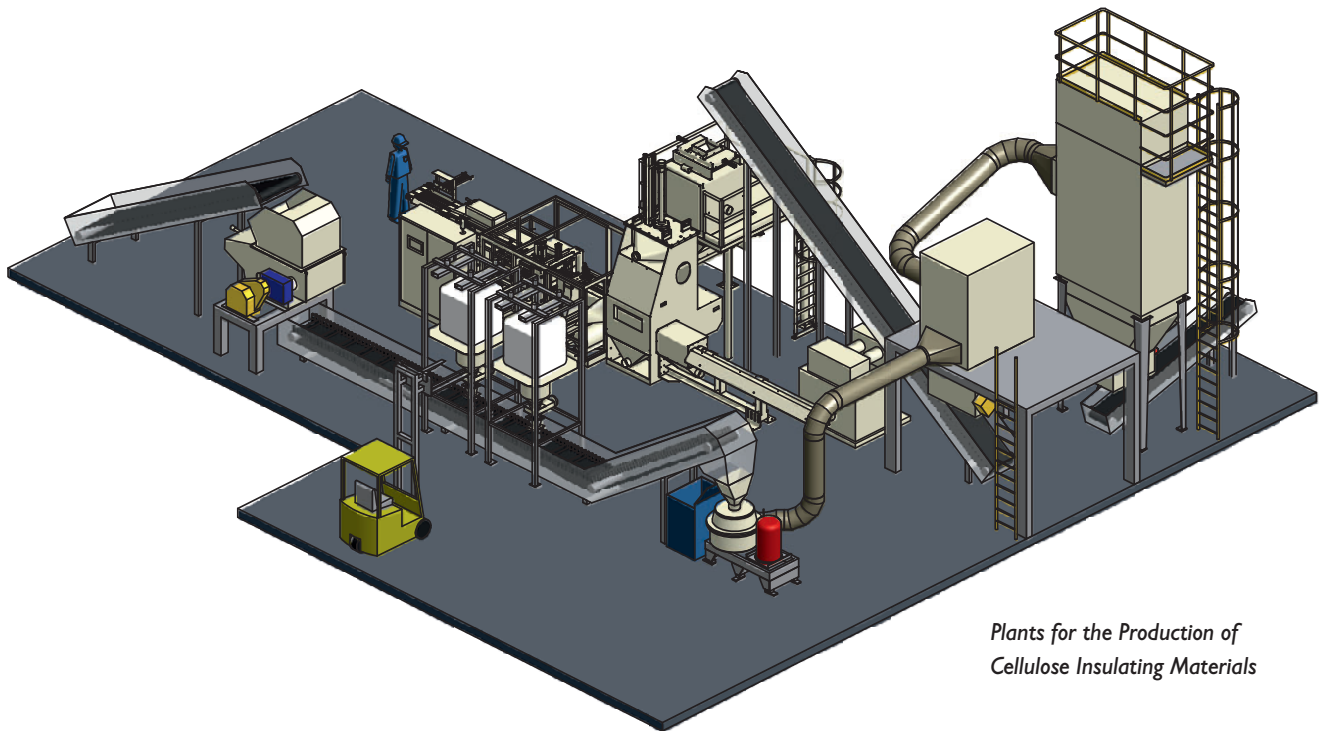


Cellulose Insulating Material Plants



Plants for the Production of Cellulose Insulating Materials

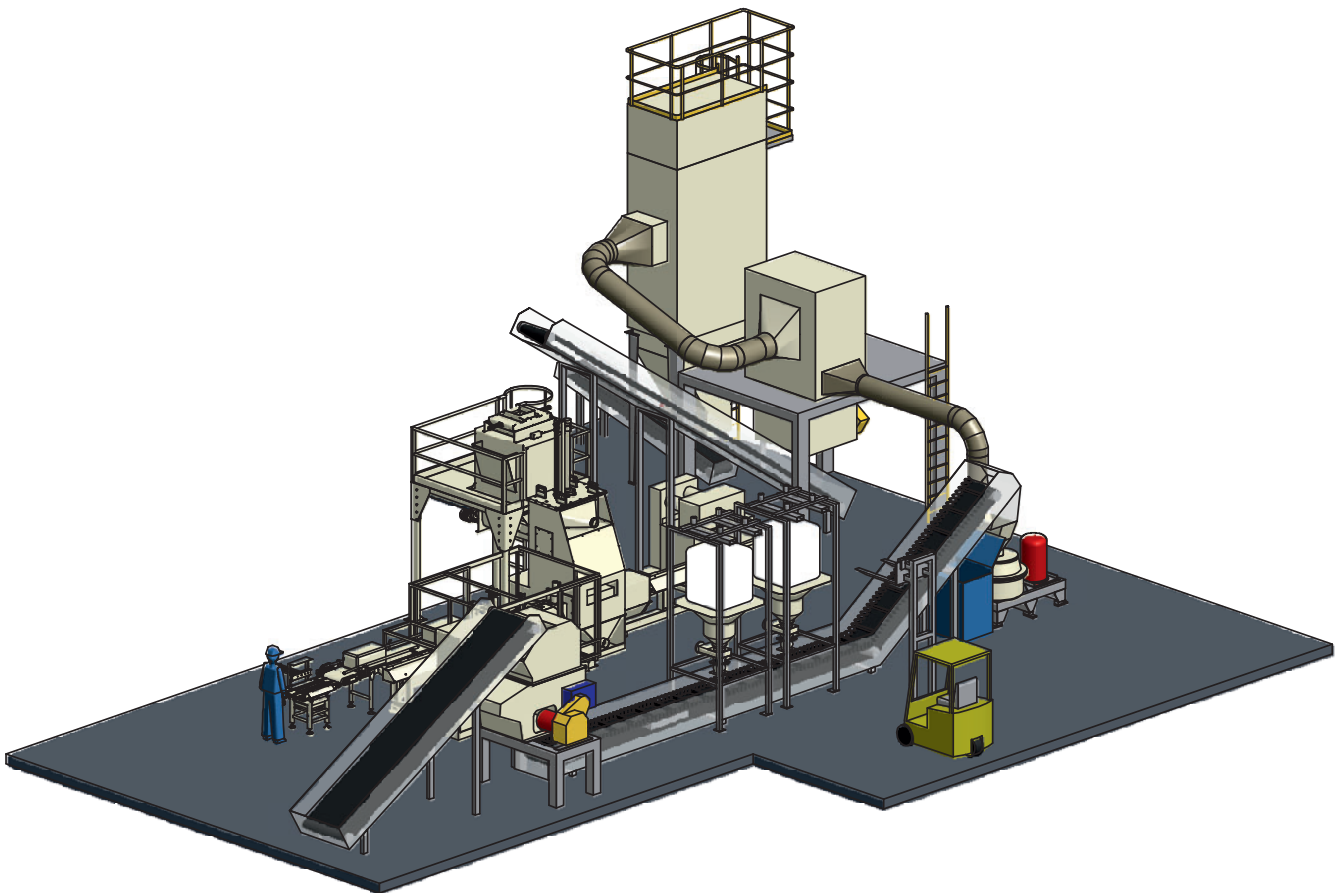
Plant description

Grenzbach BSH supplies complete plants for defibrating recovered paper (preferably newsprint) to obtain a high-grade, ecological and easy to handle building insulating material with optimised building biology features. The key component of our technology is a Whirlwind Mill, which provides particularly fluffy, optimally defibrated flocks that contain only very small amounts of dust (broken fibres). The bales of paper are fed to a shredder which reduces it to pieces the size of a stamp and separates the sheets. A downstream magnetic separator removes

metallic contaminants from the paper flow before the latter enters the Whirlwind Mill. Together with the paper, flame-proofing agent (barium salts) is fed to the mill in metered quantities. In the grinding clearance of the Whirlwind Mill the paper shreds are further torn apart and at the same time fully defibrated. The special design of the Whirlwind Mill rotor creates strong swirls in the grinding

clearance which turn the fibres into loosened, fluffy flocks. During the defibration process the flame-proofing salts are pulverised in the mill and deeply embedded in the cellulose fibres. The grinding air discharges the finished insulating material from the Whirlwind Mill and pneumatically conveys it into a bag-house separator. Most of the grinding air is run in circulation mode, which minimises any emissions. The insulating material is stored in a bin and then conveyed to an automatic packer system with weighing unit.

Cellulose Insulating Material Plants



Advantages

Cellulose insulating material is an ecological building material free from any health risk. It has optimised technical characteristics and building biology properties and complies with the latest legal requirements and regulations. The Grenzebach BSH Whirlwind Mill provides for complete defibration and stable, large-volume flocks with long fibres. A high content of supporting fibres enhances the incorporation of the flame-proofing agent and

the mechanical strength of the flocks. The insulating material obtained in this way has an extraordinarily high volume stability, i.e. the insulation will not shrink, as is the case with mineral fibres after some time. Cellulose insulation materials produced using the Grenzebach BSH technology stand out for their extremely low dust content. Due to the very simple but also very effective design, the plants are easy to operate, have a high availability and require little service and maintenance.

Product specifications

- Thermal conductivity of the cellulose insulating material = 0.040 W/mK
- Bulk densities of 20 – 30 kg/m³
- Injection densities (for instance in roof areas) of 30 – 35 kg/m³
- Capacities of 600 – 3,000 kg/h per production line are possible