Plants for difficult to handle bulk materials

Sanem, Luxembourg
YEAR OF CONSTRUCTION 2019

DESCRIPTION

After many successfully completed projects for a market-leading customer from the wood industry, SHW-SHS received the order for a double truck acceptance with vibration grille that could be driven on in a large chipboard factory.

Automated acceptance and preparation of recycling wood for saving natural resources was implemented in close coordination with the operator.
The chopped wood material is transported and stored for further use for the chipboard manufacture. The bulk goods that cannot be used are combusted for generating energy in the form of electricity or steam.

For this, some tried and tested SHW-SHS removal and conveyor components were used to supplement the truck acceptance. According to their task, they were sensibly used in complex positions in a newly built process line.

The recycled wood is delivered by truck, passes the vibration grille and is dosed onto the acceptance conveyor. The subsequent conveyors transport the bulk material onwards.
A pre-sorting procedure separates the bulk goods and routes most of it into two storage silos for interim storage with the bucket elevator.

Removal from the large silos (< 10, 000 m³) takes place using large SHW recirculation screws.
A further conveyor line fills four small SHW steel silos with this bulk material (2x micro wood chips, 2x macro wood chips).

The steel silos are equipped with the SHW rotor unit, ensuring even equipment of the downstream blade ring chipping. The space-saving routing desired by the customer could be implemented by flexible arrangement of the removal screws.

The bulk material is spread among further storage silos downstream of the blade chipping.
They are removed by SHW recirculation screws and supplied to production and the combustion facility with long belt conveyors.

The following SHW components were installed in this system:

- Double acceptance conveyor with a width of 2 m in belt design and grille that can be driven on
- Two large recirculation screws for wood fractions A1 and A2
- Four small recirculation screws in the interim storage
- Four rotor units with removal screws in steel silos
- Two large recirculation screws for wood fractions A3 and A4

The system was designed for low dust and low noise to meet locally required dust and noise emission values alike.
All components were customised to the customer's needs in their designs (material selection, wear, design, drive output).