

Getting finer with double-deck BIVITEC screening machine



Using special screening machines in the Dorste plant of Südharzer Gipswerke GmbH to implement a finer cut point, thus increasing product output.

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| Year of construction: | 2005 |
| Country: | Germany |
| Feed material: | Gypsum |
| Feed rate: | 120 t/h raw gypsum "0/100 mm" |
| Type of machine: | BIVITEC KRL/DD1300x5 |
| Ref. Number: | 27841 |

Starting situation

After blasting and preliminary screening, raw gypsum is temporarily stored in stockpiles at the Dorste plant of Südharzer Gipswerke GmbH. The raw gypsum is then screened to "0/110 mm" using two screening machines of conventional design. Both machines only function well in dry weather; the openings of the screen panels become blocked if the moisture content of the charging material is very high. The finer cut point is around 20 mm and the aim is to reduce it.

Solution by Binder+Co

- Performance of screening tests in Gleisdorf
- Implementation of a cut point for specified raw gypsum of 10 mm with BIVITEC (lower deck, ox-horn system)
- Design of upper deck with BIVITEC mats without ox-horn system for a cut point of approx. 30 mm
- The "BIVITEC effect" assists in the removal of various fine adhesive grains
- Binder+Co provided the customer with additional support by drafting an appropriate planning drawing
- Two possible intermediate products for supply to the downstream processing plant:
 - 10/110 mm: merging of the two overflows from the screen decks 30/110 and 10/30
 - 30/110 mm: screen overflow from the upper deck

Benefit for the customer

- Use of only one special screening machine (originally 2 "conventional machines")
- Implementation of a finer cut point, thus increasing product output
- Lowering the amount of "by-product" (screen underflow)
- Also possible to screen raw gypsum with a higher moisture content
- Good opportunities for optimizing the two screen cut points