

NivoRadar in a dusty application between double filling system

The Challenge

The largest producer of animal feed in Chile needed a continuous level measurement for 15m high storage tanks, for various powdered base materials for the production of animal feed. It should work without contact to the product and meet the dynamic filling process via two filling lines. The application is very dusty. In addition, there are metal braces in the tanks, which make the installation and the function of a level sensor more difficult.

Our Solution

The continuous measuring radar sensor NivoRadar NR3100 was the best solution in this application. This sensor operates at a frequency of 78 GHz and has a beam peak of only 4 °. At a distance of 15m, the diameter of the beam is only about 1m. The sensor could be optimally placed and aligned with the flexible adjustment flange on the tank discharge. Thus, the metal struts were not in the measuring range of the beam. The high frequency of the sensor also provides an optimal echo confidence in this very dusty application. The standard air purge device for the lens antenna did not have to be activated.



Products



NR 3100

Content measurement

- 78GHz FMCW-Radar Level transmitter
- Suitable for use in almost all solids
- Fixed flange and adjustable flange option
- Measuring range up to 100m
- Connection to our user-friendly visualisation systems Nivotec 3500/4500 possible using 4-20mA signal