



Level



Pressure



Flow



Temperature



Liquid
Analysis



Registration



Systems
Components



Services



Solutions

FTM20 Provides Low Level Detection in Toothpaste Powder Silo- Chemical

FTM20 is not affected by high bulk solids column



Truck delivering new product material



Soliphant T FTM20 / FTM21



Toothpaste for dental care

The Soliphant T FTM20 “mono-rod” sensor is used to trigger the re-order process of raw material in toothpaste production. The weight of the bulk solids in the 33 foot silo does not affect the switch point.

Company profile

The customer is specialized in oral care. These product lines encompass toothpaste, dental rinses, fluids and gels, and toothbrushes. This plant produces toothpaste.

Application

The mono-rod sensor FTM20 was installed as a test in this application where a Soliphant FTM50 vibrating fork was installed. The FTM50 was working without any problems.

Material: Toothpaste powder
Bulk density: 54 lb/ft³ (870 g/l)
Temperature: -4 to +104°F
Pressure: Ambient
Pressurized filling: 13 psi

Application challenges

The sensor is mounted outdoors, the probe is subjected to high radial loads and abrasion.

Prior to the Soliphant installation, a competitor's paddle switches were used. These instruments suffered from constant bearing damage due to powder penetration.

Instrument description

FTM20 single rod, threaded process connection, DPDT relay and polyester housing. The Soliphant T is a robust level limit switch for silos with fine-grained or coarse non-fluidized bulk solids.

A piezoelectric drive excites the probe rod to its resonance frequency. If a bulk solid covers the vibrating rod, the vibrating amplitude changes, which causes a switch point. The electronics compare the actual amplitude with a target value and indicates whether the rod is vibrating freely or whether it is covered by material.

Measurement results

The FTM20 works without any problems despite the high radial loads due to the silo height.

For more information, contact
Endress+Hauser, Inc.
317-535-7138
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Soliphant T FTM20 low level detection in a 33 ft high toothpaste powder storage tank triggers the re-order process when the material level is low.



Mounting location of the Soliphant T

ISO 9001:2000 Certified

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