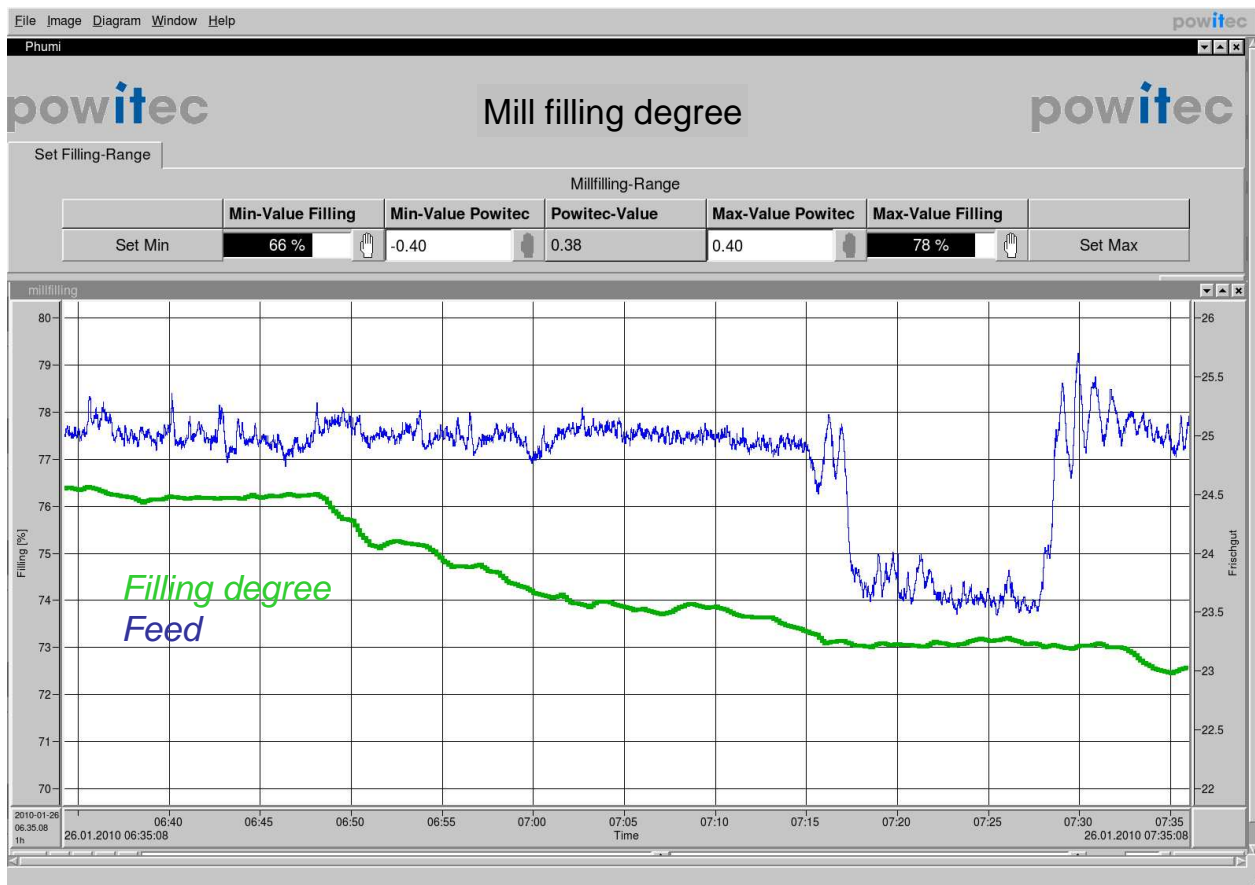


# Plug And Play Filling Degree Indication

## PiT Indicator for cement ball mills



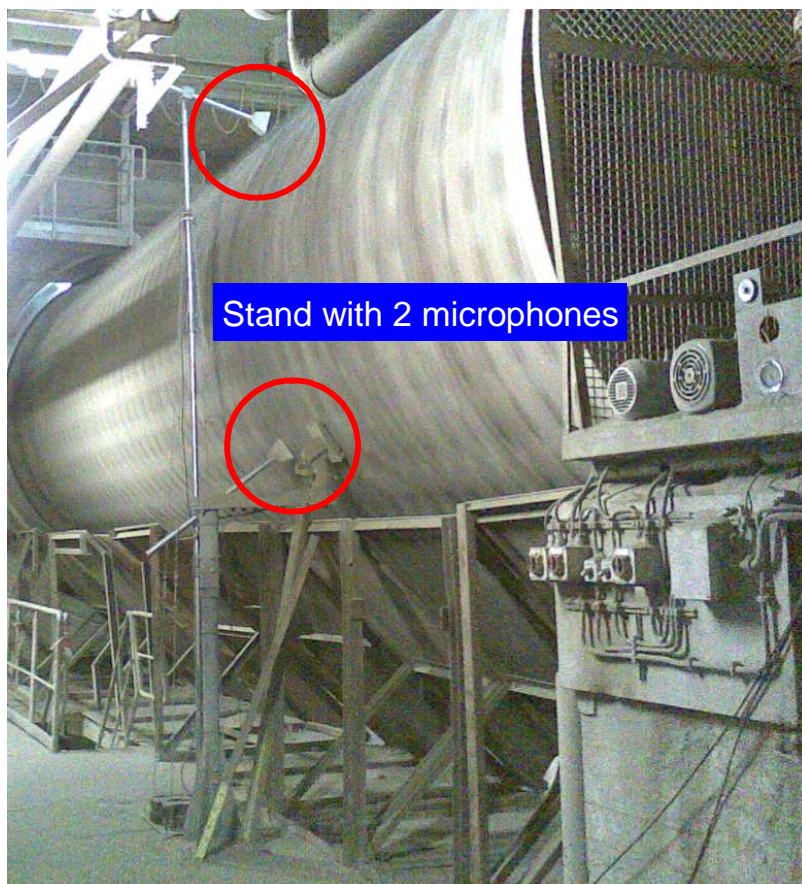
### Your Benefits

- Filling degree information
- No mill stop, fast commissioning
- Calibration in the control room
- Rugged construction
- Open Connectivity
- Upgradeable to closed loop mill control
- Easy and inexpensive to scale to multiple mills

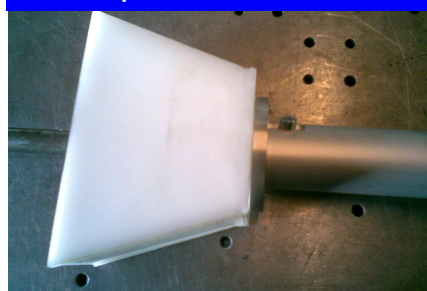
- ◆ Mill sound acquisition by using one or two microphones per mill
- ◆ One microphone for stand-alone mills
- ◆ Option: two microphones for multi mill set-ups at the same location or at one mill for proportional analysis of filling degree by using advanced signal processing on acoustic spectra
- ◆ Graphical User Interface to calibrate measured filling degree against „expected filling degree“, trending, alarming
- ◆ Option: Process interface, e.g. OPC client, ModbusRTU/TCP, ProfibusDP, Analogue ...
- ◆ Option: Upgrade to adaptive closed loop Mill Control

## Advantages:

- ◆ No mill stop necessary at installation and for maintenance
- ◆ 2 microphones enable proportional measurement
- ◆ Up to 120°C
- ◆ Optional air cleaning
- ◆ Rugged construction: Metal housing and metal membrane. No field computer
- ◆ Open connectivity (OPC, Modbus, Profibus etc.)
- ◆ Wired connection delivers high signal density
- ◆ Visualisation highly flexible (integration of PCS data)
- ◆ Two microphones per mill to allow for advanced signal processing
- ◆ Guaranteed **exact measurement** of mill filling degree even in multi mill setups at the same place
- ◆ **Upgradeable** to Mill-Optimiser easy and inexpensive to scale to multiple mills



Microphone Bell Mouth



Using optimisation potentials ...

...while quality is kept under control...

...results in reduced grinding costs.

## Contact:

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