

Civil Engineering

Deflection & drift control and monitoring

High precision continuous measurement of building and infrastructure during construction and operation in the harshest environments



- ▶ Diagnostics
- ▶ Detection
- ▶ Sounding
- ▶ Continuous control
- ▶ Predictive monitoring

Continuous monitoring
lifetime supervision

Regular checks
control of alteration

Short term control
during construction

FOGALE innovative solutions for engineering instrumentation makes use on high performance capacitive sensors:



HLS - Hydrostatic Leveling System

Altimetric measurement
Measurement range: 20-100mm/custom
Repeatability: 0.5-300 micron



WPS - Wire Positioning System

1-D or 2-D gap measurement
Measurement range: 2.5-20mm/custom
Repeatability: from 1 to 10 micron



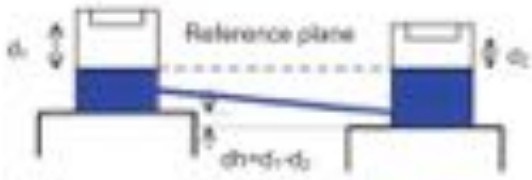
RIA - Power / data acquisition rack

Multi-sensor compatibility
16 measurement channel
Continuous data acquisition

Deflection & drift control and monitoring

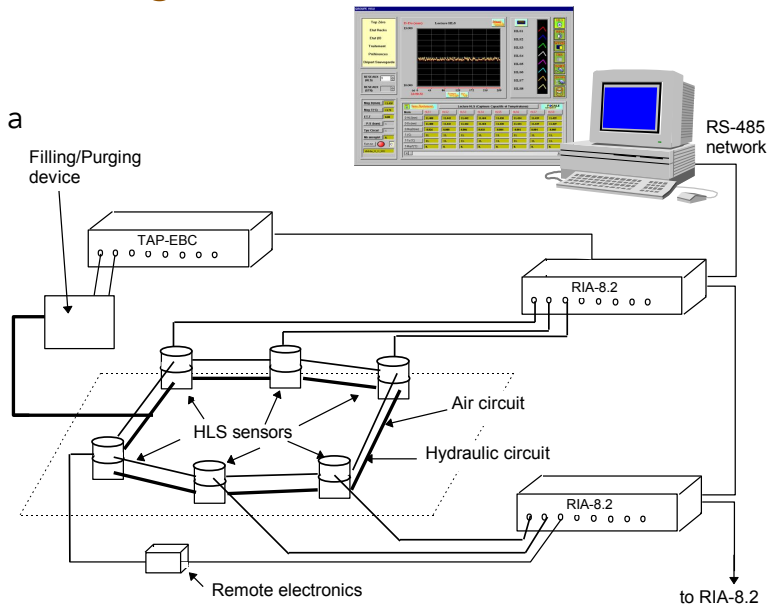
Metrology system configuration

FOGALE Metrology system is composed of a series of HLS sensor networks each positioned on a reference plane.



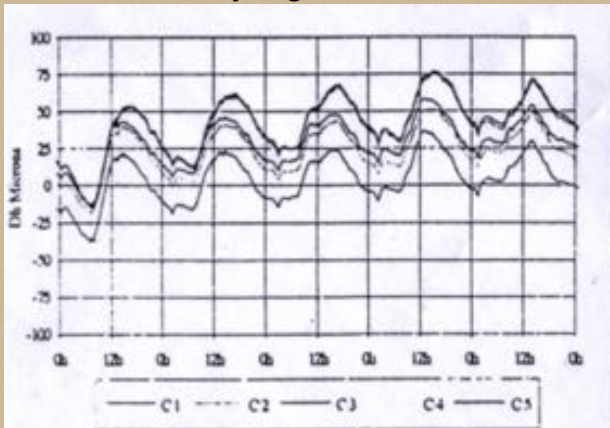
In addition, WPS sensors can be implemented for alignment control.

All data is acquired in real time and is processed on PC through a measurement software.

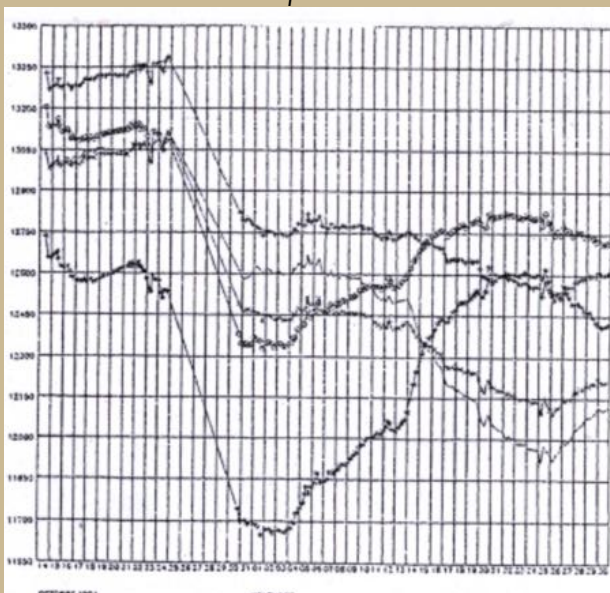


Some Measurements ...

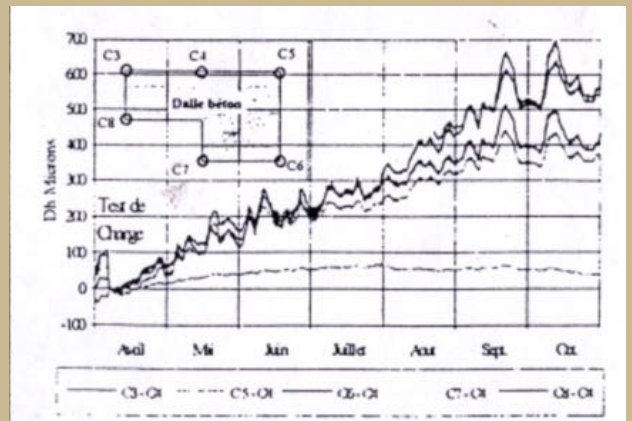
Deflection measurement of a construction joint day/night effect



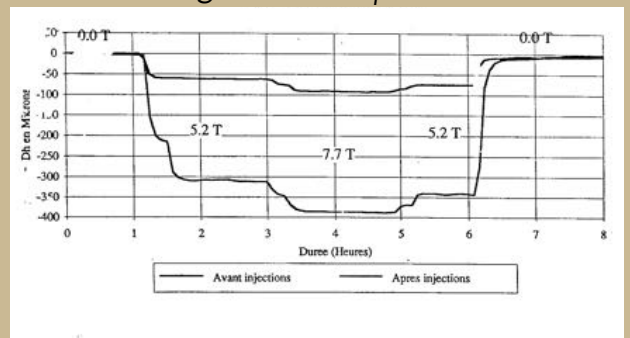
Dam deflection history (microns) on 4 positions



Extraction of concrete block over 7 months



Compression ratio measurement of a ground or a pavement



Stability of marble mounted on jacks reference located 40m away

