

## Experiential report electronic one-man level nivcomp

By order of a large german coal producer, we regularly accomplish supervision-measurements in buildings in former coal districts. Thereby we observe the imbalance of floors partly in several floors of residential - business - and industrial buildings in different sizes.

Until a few months we made this measures with a ZEISS digital leveller in the outdoor area. In the indoor area we did it with a customary water level gauge.

Through a conversation with GOECKE we became aware of the one-man-level nivcomp. Because of the quite cheap price we bought such a device. Approximately we were a little bit sceptical whether the precision-statements of the manufacturer ( $\pm 2$  mm within a workspace of 48m) can be kept and whether working across several floors is possible without any problems.

For reasons of caution or suspect against the new system the first measurements were done double, with a ZEISS digital leveller/classical water level gauge and the one-man-level.

The result was amazing. The precision is documentable with approximately 1mm, the time saving is immense and reading errors through parallax (classical water level gauge) or on the level lath virtually can be excepted.

After approximately 500 measurements we can draw the following comparisons at the example of an one-family-house:

	<b>Leveller</b>	<b>Classical water-level-gauge</b>	<b>nivcomp</b>
personnel	2 persons	2 persons	1 person
expenditure			
time exposure	ca. 60 minutes	ca. 30 minutes	ca. 15 minutes
total time exposure	ca. 120 minutes	ca. 60 minutes	ca. 15 minutes
precision	< 1,0mm	1,0 - 2,0 mm	1,0 mm
error sources	reading of the lath / conversion	error of parallax	no
other problems	frequent assemble necessary	loudly orders necessary	no

The length of the hose makes a comfortable working possible even in very large buildings like super markets, industrial halls and workshops.

If the hose reel is put into the stairwell the relativ height differences between two ceilings can be measured easily because the range of the nivcomp is very large with  $\pm 2,5$  m. Theoretically it's sufficient for floor heights more than 4,5 m.

We are happy for buying the one-man-level and can unconditional recommend it.

The investment in height of barely 700,00 € turns to account within less weeks.