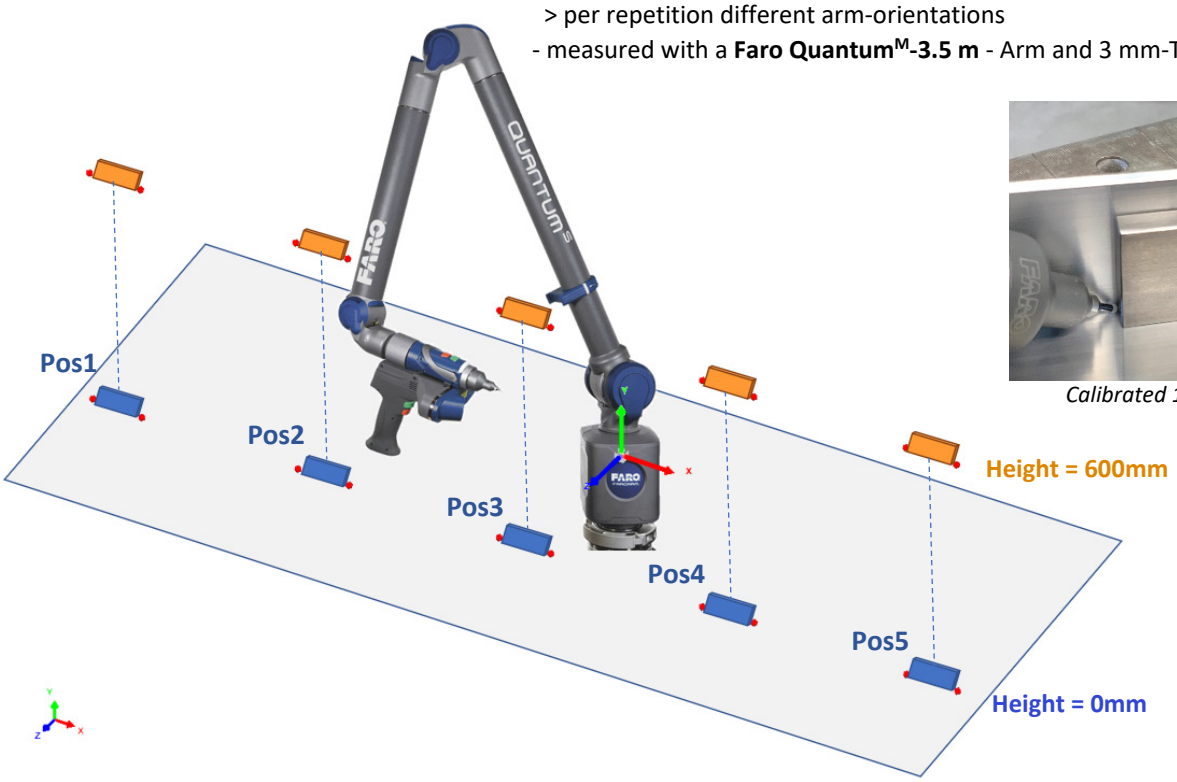
Q: How accurate can you measure a 100 mm Gauge block with an 3.5 m *Measurement-Arm ?*

A: You can measure it with **± 27 µm** (max single deviation)
and with **± 13 µm** (max average-deviation to nominal)

SIGMA 3D
FLEXIBLE 3D MESSTECHNIK

Experiment description:

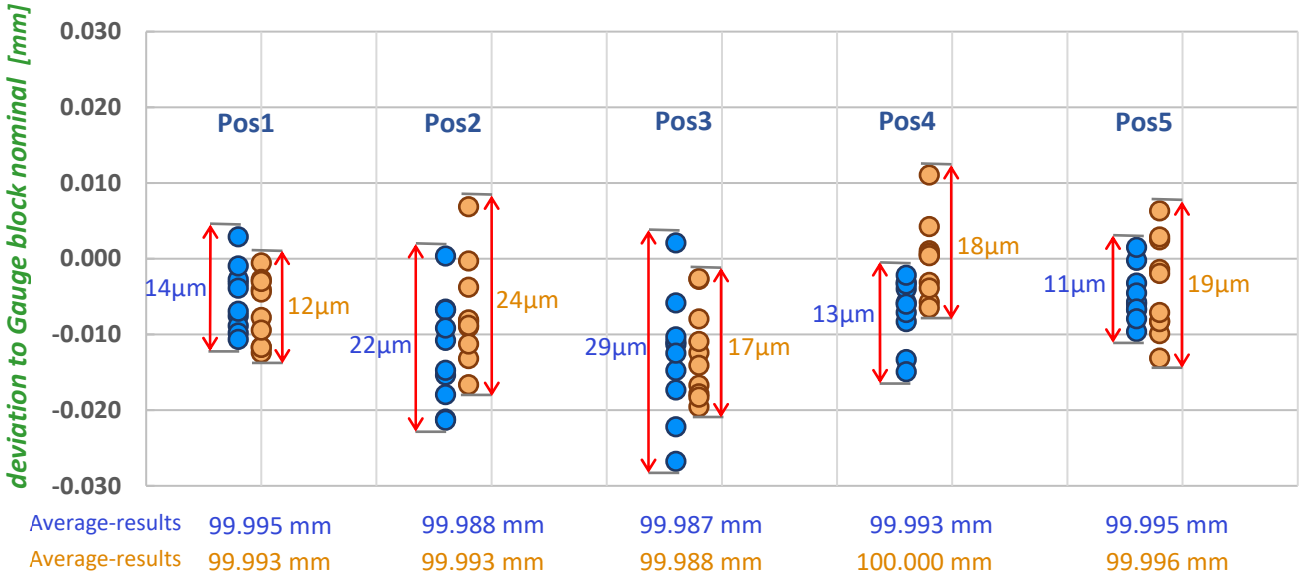
- Determination of 100 mm Gauge block with a Measurement-Arm
- measured at 10 different positions to the Arm (5x at foot-level, 5x 600mm above foot-level)
- measured as simple „2-point-distance“ in 10 repetitions per position
  > per repetition different arm-orientations
- measured with a **Faro Quantum^{M}-3.5 m** - Arm and 3 mm-Tip



Calibrated 100 mm Gauge block

Scattering of the deviations

(single 100 mm Gauge block distances - 10 repetitions per position)



	Pos1	Pos2	Pos3	Pos4	Pos5
Average-results	99.995 mm	99.988 mm	99.987 mm	99.993 mm	99.995 mm
Average-results	99.993 mm	99.993 mm	99.988 mm	100.000 mm	99.996 mm

Specifications 7-axis-Arm - Faro Quantum^{M}-3.5 m:

- Measurement Arm specification 2-point-distance (MPE): **0.080 mm**