

Calibration Laboratory accredited
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SCS No 0073
Accreditation to ISO/IEC 17025



Certificate of Calibration

No. F-00094-01

Serial No.	F-00094	Type of calibration	Standard
Origin / old Serial No.	n/a		
Object	507213 Kalibrierkugel SH85 AO DK30 S WZS		
Material	Al ₂ O ₃		
Nominal diameter [mm]	30		
Order / Number	Calibration of diameter and roundness deviation	1101197	
Article No.	n/a		
Fabricant	Saphirwerk AG, Switzerland		

Measures

Diameter	29.98200 mm	Measurement uncertainty U_D	0.00030 mm	
Roundness deviation equatorial RON_t	0.051 μm	Measurement uncertainty $URON_t$	0.04 μm	
Roundness deviation, other planes RON_t	n/a			

References

Temperature	20° ± 0.5°C
Roundness Probe	Ruby ball Ø 2.0 mm
Filter	1-50 W/U, Gaussian
Reference ball	N-30-1-ST-02
Length measuring instrument	PM 18/002
Form measuring instrument	PM 20/001

Remarks

n/a

Date	27.01.2020	City	2555 Brügg-Biel
For the measurements		Responsible of the lab	

Measurement procedure and measurement conditions:

The measurement of diameter is made on a length measurement machine using mechanical probing. The indicated value was determined in comparison with the reference ball specified above. The roundness deviation (RON_t) was measured according to ISO 12181. It is defined as the peak to valley deviation from the least squares (LSCI) circle fitted to the measured profile.

Uncertainty of measurement:

The reported uncertainty of measurement is stated as the combined standard uncertainty multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%. The measurement uncertainty contains contributions originating from the measurement standard, from the calibration method, from the environmental conditions and from the object being calibrated. The long-term characteristic of the product is not included.

Note

The reported data refer to the product as supplied.

Plot of roundness deviation

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equatorial

