

CERTIFICATE OF CALIBRATION & TRACEABILITY

GAGE BLOCKS

Material: Steel

Standard: ISO 3650

No. of Blocks: 32PCS

Grade: 1

Set Serial No: 202078

Master Gage Block Set	
Set Number	6948
Traceability:	D-K-15190-01-00
Date:	2019-05-27

This calibration certificate documents the traceability to national standard.

which realize the units of measurement according to the international System of Units(SI).

The user is obliged to have the object recalibrated at appropriate intervals.

The calibration system used for measuring equipment meets the requirements of ISO/IEC 17025.

MEASURING CONDITIONS

During the measurements of the center deviation f_z and the deviations f_x and f_y , the gauge blocks up to 5.5mm laid on the not inscribed face and the gauge blocks greater than 5.5mm on the left face on the comparators measuring table.

The temperature deviation to 20°C during the measurements was maximally $\pm 0.3K$ and the maximum deviation of the gauge blocks to each other $\pm 0.1K$. The thermal coefficient of thermal expansion of steel was assumed the value $11,5 \cdot 10^{-6} K^{-1}$.

UNCERTAINTY OF MEASUREMENT

The uncertainty of the deviation for the central length l_c from nominal length l_n is

$$U = 0,05 \mu m + 1 \cdot 10^{-4} \cdot l_c$$
 is the length of the gauge block

The uncertainty of measurement for the deviations f_x and f_y is

$$U = 0,05 \mu m$$

The uncertainty stated is the expanded uncertainty by multiplying the standard uncertainty by the coverage factor $k=2$. The value of the measurand lies within the assigned range of values with a probability of 95%.

MEASURING RESULT

The declaration of the measuring results ensued in compliance with DIN EN ISO 3650, February 1999. The length indications are valid for a reference temperature of 20°C and for the measuring properties of the gauge blocks shown during the calibration procedure.

DATE: 2021-06-22

QUALITY ASSURANCE: *hangshao*

Nominal size	Deviation of central length from nominal size at 20 °C in µm	Deviation of central length		Id.No.	Nominal size	Deviation of central length from nominal size at 20 °C in µm	Deviation of central length		Id.No.
		f_a	f_u				f_a	f_u	
1	+0.12	0.01	0.02	K1956	1.6	+0.14	0.01	0.01	K0146
1.005	+0.15	0.02	0.01	K2576	1.7	+0.12	0.02	0.01	K2310
1.01	+0.06	0.01	0.01	K0405	1.8	-0.15	0.01	0.02	E1787
1.02	+0.08	0.02	0.01	K0943	1.9	+0.10	0.02	0.02	K1292
1.03	-0.05	0.01	0.02	K0463	2	+0.07	0.02	0.02	K0889
1.04	+0.09	0.02	0.02	K0361	3	-0.10	0.02	0.01	K4193
1.05	-0.08	0.02	0.02	K0131	4	-0.11	0.01	0.02	K2773
1.06	+0.15	0.02	0.01	K0573	5	-0.14	0.02	0.01	H7024
1.07	+0.10	0.01	0.02	K3691	6	+0.12	0.02	0.02	H7601
1.08	+0.07	0.01	0.01	K0935	7	-0.09	0.02	0.01	K3056
1.09	-0.09	0.01	0.02	K3468	8	+0.15	0.01	0.01	K1812
1.1	+0.07	0.01	0.02	K2004	9	+0.14	0.02	0.01	K5062
1.2	+0.08	0.01	0.01	K2563	10	-0.08	0.01	0.02	K6578
1.3	-0.10	0.02	0.02	H230	11	-0.19	0.02	0.02	K1366
1.4	+0.10	0.02	0.01	H230	12	+0.10	0.02	0.02	K2809
1.5	+0.05	0.01	0.02	H230	13	+0.27	0.02	0.01	K1241

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EXAMPLE