

CALIBRATION CERTIFICATE

Customer : 0155600
Identification number : 118619001
Gauge application : Incoming inspection
Standard of thread : Metric ISO threads acc. to ISO 965:1998/ISO 1502:1996
Type of gauge : GO/NOT GO thread plug gauge
Thread designation : M 20x2.5-6G
Pitch : 2,5000 mm
Measuring method : Three wires method
Wire diameter : 1,4438 mm
second wire diameter : 1,4438 mm
Measuring force : 9,20 N
Measurement traceability : Mahr 828 Nr.31
Measurement traceability : Gauge block set ID 3997 57308 D-K-15190-01-00 2015-06

Gauge nominal values	Go side	Not Go side
Major diameter max.	: 20,0720 mm	19,1630 mm
Major diameter min.	: 20,0440 mm	19,1350 mm
Pitch diameter max.	: 18,4410 mm	18,6560 mm
Pitch diameter min.	: 18,4270 mm	18,6420 mm
Minor diameter max.	: 16,9750 mm	16,9750 mm

Measuring values Pitch diameter - Go side

Plane	Axial section	PitchØ [mm]	Out of tolerance [µm]
2	0 Degree	18,4371	-

Measuring values Pitch diameter - Not go side

Plane	Axial section	PitchØ [mm]	Out of tolerance [µm]
2	0 Degree	18,6466	-

Valuation: usable

Operator:  Date: 22.05.2019
(Stark)

Uncertainty of measurement: $U = 2.5 \mu\text{m} + 10 \cdot 10^{-6} \cdot d$. The uncertainty stated is the expanded uncertainty of measurement obtained by multiplying the standard uncertainty by the coverage factor $k = 2$. They were established according to DAkkS-DKD-3. The value of the measured variable is within the assigned value range with 95 % probability.
Ref.temp: $(20 \pm 1) ^\circ\text{C}$. **Inspection requirement:** The inspections procedure was based on recognised German inspection specifications (VDI/VDE/DGQ/2618). The measuring equipment and standards used are compared regularly with reference standards calibrated by a calibration service accredited by the European Cooperation for Accreditation (EA) and therefore traceable to the national standards of the PTB. Hence the inspection certificate complies with the traceability requirements of DIN EN ISO 9001.