



Schweizerische Eidgenossenschaft
Confédération suisse
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Federal Department of Economic Affairs,
Education and Research EAER
State Secretariat for Economic Affairs SECO
Swiss Accreditation Service SAS

Swiss Confederation

Based on the Accreditation and Designation Ordinance dated 17 June 1996 and on the advice of the Federal Accreditation Commission, the Swiss Accreditation Service (SAS) grants to

TESA SA
Laboratories for dimensional metrology
Rue du Bugnon 38
1020 Renens



Period of accreditation:
21.09.2017 until 20.09.2022
(1st accreditation: 27.06.1994)

the accreditation as

Calibration laboratory for dimensional measurements

International standard: ISO/IEC 17025:2005
Swiss standard: SN EN ISO/IEC 17025:2005

3003 Berne, 21.09.2017
Swiss Accreditation Service SAS

Head of SAS
Konrad Flück

SAS is a signatory of the multilateral agreements of the European co-operation for Accreditation (EA) for the fields of testing, calibration, inspection and certification of management systems, certification of personnel and certification of products, processes and services, of the International Accreditation Forum (IAF) for the fields of certification of management systems and certification of products, processes and services and of the International Laboratory Accreditation Cooperation (ILAC) for the fields of testing and calibration.



SCS Directory

Accreditation number: SCS 0001

International standard : ISO/CEI 17025:2005
Swiss standard : SN EN ISO/CEI 17025:2005

<p>TESA SA Laboratories for dimensional metrology Rue du Bugnon 38 1020 Renens</p>	<p>Head : Responsible for MS : Telephone : E-Mail : Internet : Initial accreditation : Current accreditation : Scope of accreditation see :</p>	<p>Mr Patrice Caumette Mr Patrice Caumette +41 21 633 16 00 mailto:tesa-info@hexagon.com http://www.tesagroup.com/ 27.06.1994 21.09.2017 to 20.09.2022 www.sas.admin.ch (Accredited bodies)</p>
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Scope of accreditation as of 21.09.2017

Calibration laboratory for dimensional measurements

Calibration and Measurement Capability (CMC)

Measured Quantity / Instrument or gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
<p>Length</p> <p>Gauge blocks According to ISO 3650</p> <ul style="list-style-type: none"> - Steel - Ceramics - Tungsten carbide 	0,5 - 101,6 mm	Central length	0,06 μm + 0,3 · 10 ⁻⁶ · L	Comparison measurement on TESA UPC/UPD benches
		Length variation v	0,05 μm + 0,3 · 10 ⁻⁶ · L 0,05 μm + 0,2 · 10 ⁻⁶ · L 0,02 μm	
Gauge blocks	0,05 - 300 mm	Central length	0,8 μm + 1,3 · 10 ⁻⁶ · L	With horizontal bench



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Measured Quantity / Instrument or gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Height Gauges				
- Plunger in the axis	Up to 100 mm	0,0001 mm	0,5 μm + 25 \cdot 10 ⁻⁶ ·L 0,4 μm + 3 \cdot 10 ⁻⁶ ·L	With vertical bench With gauge blocks
- Plunger not in the axis	Up to 100 mm	0,0001 mm	1,5 μm + 30 \cdot 10 ⁻⁶ ·L 1,2 μm	With vertical bench With gauge blocks
- Plunger not in the axis	Up to 1000 mm	0,0001 mm	1,7 μm + 3 \cdot 10 ⁻⁶ ·L	With step gauge
- Straightness / Perpendicularity	Up to 1000 mm	0,0001 mm	3 μm	With granite vertical planes
External micrometers				
- Analogic or digital reading	Up to 100 mm	0,001 mm 0,010 mm	1,8 μm + 0,8 \cdot 10 ⁻⁶ ·L 2,5 μm + 0,6 \cdot 10 ⁻⁶ ·L	For periodic calibrations
- Digital reading	Up to 100 mm	0,001 mm	1,7 μm	For initial calibrations on brand new instruments
Dial gauges				
- Analogic reading	0 - 13 mm	0,001 mm 0,002 mm 0,010 mm	0,8 μm 0,9 μm 2,1 μm	With horizontal bench
- Analogic reading	13 - 100 mm	0,001 mm 0,002 mm 0,010 mm	1,0 μm 1,1 μm 2,1 μm	With horizontal bench
- Digital reading	0 - 100 mm	0,001 mm 0,010 mm	1,3 μm 6,3 μm	With horizontal bench
Dial test indicators				
- Analogic reading	0 - 1,6 mm	0,002 mm 0,010 mm	1,1 μm 2,0 μm	With horizontal bench



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Measured Quantity / Instrument or gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Calipers		Scale interval		
- Digital reading	Up to 500 mm	0,010 mm	$14 \mu\text{m} + 2 \cdot 10^{-6} \cdot L$	With gauge blocks
- Analogic reading	Up to 500 mm	0,020 mm	$7 \mu\text{m} + 3 \cdot 10^{-6} \cdot L$	
		0,050 mm	$17 \mu\text{m} + 1 \cdot 10^{-6} \cdot L$	
Depth calipers		Scale interval		
- Digital reading	Up to 500 mm	0,010 mm	$15 \mu\text{m} + 2 \cdot 10^{-6} \cdot L$	With gauge blocks
- Analogic reading	Up to 500 mm	0,020 mm	$12 \mu\text{m} + 2 \cdot 10^{-6} \cdot L$	
		0,050 mm	$15 \mu\text{m} + 2 \cdot 10^{-6} \cdot L$	
3-Point Internal micrometers		Scale interval		
- Analogic or digital reading	6 - 60 mm	0,001 mm	$2,5 \mu\text{m} + 0,7 \cdot 10^{-6} \cdot L$	With ring gauges
		0,002 mm	$2,5 \mu\text{m} + 0,7 \cdot 10^{-6} \cdot L$	
		0,005 mm	$2,5 \mu\text{m} + 0,7 \cdot 10^{-6} \cdot L$	
		0,010 mm	$2,5 \mu\text{m} + 0,7 \cdot 10^{-6} \cdot L$	
Adjustment gauges / Length gauges	25 - 275 mm	Central dimension	$0,8 \mu\text{m} + 1,2 \cdot 10^{-6} \cdot L$	With horizontal bench
Ring gauges / Gauges for Height Gauges	3 - 205 mm	Internal dimensions	$0,6 \mu\text{m} + 1,4 \cdot 10^{-6} \cdot L$	With horizontal bench
Plug gauges / Cylindrical revolutionary parts	0,15 - 180 mm	External dimensions	$0,6 \mu\text{m} + 1,2 \cdot 10^{-6} \cdot L$	With horizontal bench
Ring gauges / plug gauges	3 - 150 mm	Roundness	$0,9 \mu\text{m}$	With roundness bench

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