

Mettler-Toledo S.A.E.

Laboratorio de Calibración

Sede Laboratorio

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METTLER TOLEDO



ITEM **Piston operated burette**

MANUFACTURER **METTLER TOLEDO**

MODEL **ME-51107127**

NOMINAL VOLUME **20 ml**

IDENTIFICATION **ID004028**

APPLICANT **METTLER-TOLEDO PAC RIM AG-TAIWAN**
2F., No 17, Lane 171, Sec. 2, Jiuzong Rd
11494 Taipei City Taiwan

Calibration date **15 October 2018**

Authorized Signatory

Este certificado se expide de acuerdo con las condiciones de la acreditación concedida por ENAC, que ha comprobado las capacidades de medida del laboratorio y su trazabilidad a patrones nacionales o internacionales.

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This certificate is issued in accordance with the conditions of accreditation granted by ENAC which has assessed the measurement capability of the laboratory and its traceability to national or international standards.

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Instrument information

Burette	ME-51107127
Serial number	ID004028
Nominal volume	20 ml

Calibration procedure

Procedure PEC/MTE/22 based to the ISO 8655 norm and with the METTLER TOLEDO manuals.
The measured volume corresponds with delivered volume (Ex) at the reference temperature of 20 °C.

Calibration conditions

Ambient temperature	Min. 20,2 °C	Max. 20,3 °C
Relative humidity	51,8 % Hr	
Pressure	942,8 mbar	

Traceability

Standard equipment used

Balance	BAL01	AT201 - 5 decimal places balance
Burette drive	MOT01	T50
Water temperature	TER 68	0,1 °C resolution
Ambient conditions	REG02	(air Temp, rH)
Class III water	1802501863	

The reference water density is referred to the ISO/TR 20461 (2000) tables.

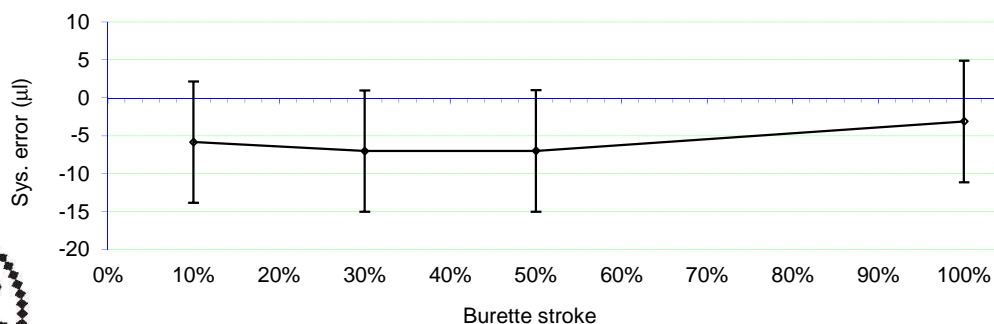
The traceability of measurements are referred to laboratories accredited by recognized ILAC organisms or national laboratories EUROMET participants.

Uncertainty

The reported expanded uncertainty of measurement is stated as the Standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EAL publication EAL-R2.

Calibration results

Burette stroke	10%	30%	50%	100%	
Selected volume	2	6	10	20	ml
Water temperature	19,8	19,8	19,8	19,8	°C
Measured volume	1994,2	5993,0	9993,0	19996,9	µl
Systematic error	-5,8	-7,0	-7,0	-3,1	µl
Relative error at selected volume	-0,29%	-0,12%	-0,07%	-0,02%	
Relative error at nominal volume	-0,03%	-0,04%	-0,03%	-0,02%	
Measurement uncertainty	8	8	8	8	µl



Technician: Pilar Ramos
Coslada, 15 October 2018

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