# DISSEMINATION OF 1 KG MASS STANDARD

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Keywords: standard, metrological infrastructure, calibration, uncertainty, traceability

## ABSTRACT

Bureau of Metrology (BoM) is a National metrology institution of the Republic of Macedonia. The main objective of BoM, as specialized body is establishing the National standards of International SI-units, for providing traceability of the measurements in the country and with the world. The National metrology infrastructure must rely on global metrological infrastructure and world-wide achievements in fundamental metrology, for practically definition, realization and development of International standards of measurement units.
Because traditionally and historically, the development of metrology began with mass unit, this paper describes the dissemination of the National mass standard from 1 kg reference standard. The mass standards, equipment used for the comparisons, results and uncertainties for the weights are also described.

# INTERNAL CALIBRATION OF THE PISTON PROVER NATIONAL STANDARD FOR LIQUID FLOW

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Key words: piston prover, water draw, single substitution, uncertainty.

## ABSTRACT

Description of the Macedonian National standard for liquid flow is presented in the paper. Procedure for internal calibration of the piston prover, recognized National standard for liquid flow, is determined, and volume is determined according to single substitution gravimetric method. Traceability of the measuring equipment through an unbroken chain of comparison to the SI units is presented. Assessment of uncertainty of measurement is given. Results of the internal calibration of the piston prover are presented and discussed.