

Meter Testing Laboratory

The laboratory is accredited by HOKLAS for specific tests as listed in the HOKLAS Directory of Accredited Laboratories.

General Information

The Meter Testing Laboratory of the Water Supplies Department is located at the Mechanical & Electrical Workshop, Lung Cheung Road, Kowloon. It provides meter accuracy testing services for the public as well as for the Department's internal use. For continual improvement of the Meter Testing Laboratory, the equipment and instruments have been upgraded in recent years to minimize the test uncertainty and also to enhance the control and monitoring of the testing environment. Staff undertaking meter tests are well trained and the testing procedures are standardized. Furthermore, with the implementation of an effective quality system we can assure the public that the testing services rendered by the Meter Testing Laboratory are of high quality, reliable and also comply with the relevant statutory requirements and International Standards.

Does my water meter require testing?

When the water consumption indicated in your water bill is found abnormally high but the pattern of water usage has not changed, you are advised to firstly check your inside-service piping for any leakage. When required, you may hire a licensed plumber for the inspection. If there appears to be no obvious reason and you have doubt on the accuracy of the meter, you may also apply for testing of the meter. The application form for meter testing is available at our Customer Enquiry Centres. We will inform you the venue, date and time of the test. We will also invite you to witness the testing process.

When will I get the result?

The test report will be mailed to your registered address. If you or your representative witness the test, you will also be able to see the test result immediately after the test.

Quality Policy

The Meter Testing Laboratory is dedicated to provision of quality service and in this respect has an objective to ensure full customer satisfaction and conformity to statutory and International Standard requirements.

Test Standard

The measurement error is determined by 'Collection' method in which the quantity of water passed through the meter is collected in a calibrated tank and the quantity is determined volumetrically, as per ISO 4064/3.

Scope of Test

The Meter Testing Laboratory has been accredited by 'Hong Kong Laboratory Accreditation Scheme' (HOKLAS) for performing accuracy tests on meters of size 15, 25, 40, 50, 80, 100, 150 and 200mm.

Testing Method

The water meter under test is installed onto a test rig and water passing through the meter is collected and measured in the calibrated tank under controlled testing environment.

HOKLAS is operated by HKAS of the Innovation and Technology Commission. Its aim is to recognise and promote competent testing and calibration laboratories. Laboratory accreditation is a formal recognition that a testing laboratory is competent to carry out a specific test and has implemented an effective quality system.

Water Meter Testing Schematic Diagram

(Words in diagram)

Transparent Pipe

Valve

Scale

Calibrated Tank

Transparent Pipe

Drain Valve

Valve

Flow Meter

Valve

Water Storage Tank

Flow Control Valve

Valve

Pressure Gauge - To show the degree of blockage of meter under test

Water Meter

Pressure Gauge - To monitor the upstream pressure variation which should be less than or equal to 10% of the supply pressure

Pressure Reducing Valve - To maintain the system pressure during the test

Temperature Sensor

Valve

Thermometer - To monitor the system water temperature which should be within the range of 17°C- 23°C, and the fluctuation should be less than 5°C during the test

Water Supply

According to Reg. 30(2) of part IV of the Waterworks Regulations, a meter shall be deemed to register correctly if its accuracy does not exceed 3 percent above or below correct amount.

Test Result Calculation

Assuming:

- Quantity of water registered by the meter = V_m
- Quantity of water collected by the Calibrated Tank = V_t
- ▶ Then, water meter inaccuracy = $(V_m - V_t) / V_t \times 100\%$

24-hour Telephone Enquiry Hotline: 2824 5000

Web Site Address: <http://www.wsd.gov.hk/>

Email: wsdinfo@wsd.gov.hk

Meter Testing Laboratory

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Telephone No.: 2339 3511

Business Hour:

Monday to Friday: 9 a.m. to 12:30 p.m. & 1:30 p.m. to 6 p.m.

Closed on Saturday, Sunday & Public Holidays