

WATER METER MAINTENANCE



If the request is a Meter Transfer, Water Meter Maintenance Personnel will transfer the Water Meter from the Original Location to the Proposed Location of Water Meter based on an Approved Job Order from the Commercial Department. A Job Order Accomplishment Report is submitted to the Maintenance Department after transfer is completed.

Precision Instrument Repair & Maintenance Services Chief	Job Order Accomplishment Report
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If Water Meter needs Maintenance (B), it will undergo Testing using Bench Test Machine. Maintenance includes washing, brushing & cleaning the Water Meter prior to Testing. Refer to the Instructions below for Testing.

Senior Instrument Technician	Preventive Maintenance Form
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Water Meters up to 25 mm in Diameter can be tested at the COWD Water Meter Laboratory.

The Water Meter Technician shall mount water meters on the Testing Bench carefully so that there will be no leaking connections in the system.

The Water Meter Technician shall then verify that all data for each meter is accurate, such as Size, Brand, Serial Number, Meter Reading, Age, Consumption since installation, etc.

Senior Instrument Technician	Accomplishment Report-Meter Accuracy Test
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The Water Meter Mechanic shall then test the batch of Water Meters at Four (4) different Flow Rates, Qmin, Qt, Qn, Qmax (see below).

For each Test Flow Rate, the Water Meter Mechanic shall record Initial and Final Meter Readings.

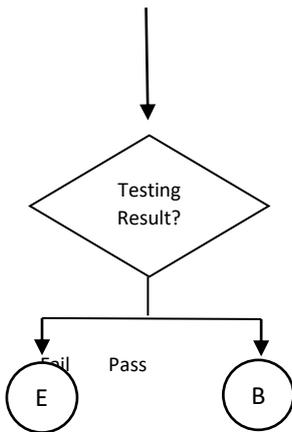
The Percentage Error for Each Meter is then computed as:

$$E = \left(\frac{V_r}{V_a} - 1 \right) \times 100\%$$

Where:
E = Meter Error in Percentage

PROPRIETARY NOTICE

WATER METER MAINTENANCE



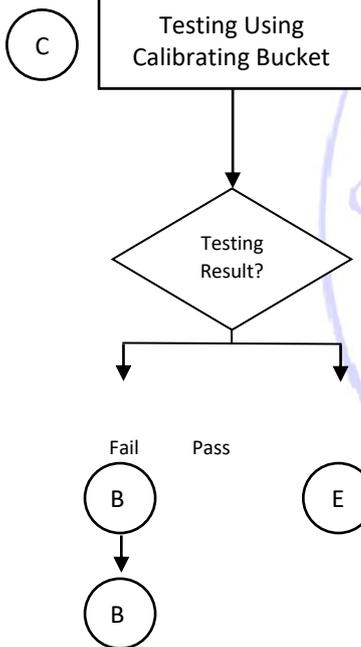
Vr = Volume Registered (Final Reading –Initial Reading)
 Va = Actual Test Volume (from the Calibrated Tank)

The Maximum Permissible Error for Water Meters per ISO 4064 are shown below:

- Qmin = +/- 5%
- Qt = +/- 2%
- Qn = +/- 2%
- Qmax = +/- 2%

Water Meters whose errors exceed the above limits are Tagged and marked for Disposal. Results of the Meter Accuracy Test and all data gathered for the Water Meters are recorded on Accomplishment Report-Meter Accuracy Test.

If the Accuracy Test result is **Pass**, then Water Meter will be installed again on field. But, if the result is **Fail**, then Water Meter will be turned-over to Property Supplies and Management Division for disposal.



If the request is Meter Test on Field, Precision Instrument Repair & Maintenance Services Chief will conduct Meter Test on Field using a Ten (10) Liters (10L) Calibrating Bucket for Three (3) Trials.

If the average result of 3 trials is **Pass**, inform the Concessionaire that their Water Meter has No Defect.

Maximum permissible error is ±5%.
 If the result is **Fail**, change the Water Meter and proceed to B.

Precision Instrument Repair & Maintenance Services Chief

Job Order Accomplishment Report

Reference Documents –

- ISO 4064 or the Metrological & Technical Requirements of Water Meters for Cold Potable Water & Hot Water

Records Generated –

- Job Order Accomplishment Report
- Accomplishment Report Meter Accuracy Test

PROPRIETARY NOTICE

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