



Futouris

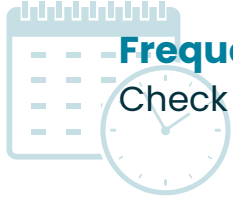
Tourismus. Gemeinsam. Zukunftsfähig.

SOP: Measuring Flow Rates

Technical Services / Maintenance

**Purpose:**

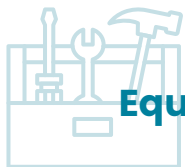
To maintain water flow efficiency and identify when aerators or low flow fixtures may require cleaning or maintenance, or when water pressure may require adjustment.

**Frequency:**

Check all flows from all water outlets a minimum of once per year

Why this matters:

It ensures accurate and comparable flow-rate data, helping to spot leaks or blockages early and it underpins targeted water and energy saving upgrades, compliance reporting, and ongoing performance benchmarking.

**Equipment:**

- Calibrated container (5 L capacity recommended)
- Stopwatch or timer (accuracy ± 0.1 s)
- Marker or tape (to clearly indicate container's fill line)
- Pen and log sheet (for recording results)

Flow rates of appliances like faucets and showerheads can be measured in two ways:

1. Use a flow meter (approximately 20€) and follow manufacturer's instructions.
2. Use a bucket and a stopwatch

Procedure Steps for using a Bucket and Stopwatch

Step 1: Set Up

- Place the calibrated container directly under the tap spout.
- Mark the exact fill-line on the container (if not pre-marked).
- Have your stopwatch and log sheet ready.

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Step 2: Start Flow

- Open the tap to its maximum flow setting.
- If measuring mixed flow, open both hot and cold taps fully.

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Step 3: Measure

- As soon as water begins to fill, start the stopwatch.
- Stop the stopwatch the instant the water reaches the fill-line.

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Step 4: Record Time

- Note the elapsed time (in seconds) on your log sheet.
- Calculate Flow Rate
 - Formula:

$$\text{Flow rate (L/min)} = \frac{\text{Container volume (L)}}{\text{Time (s)}} \times 60$$

- Example:
 - Volume = 5 litres
 - Time = 30 seconds
 - Flow rate = $5/30 \times 60 = 10$ litres/minute

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Step 5: Repeat & Average

- Perform three measurements at each fixture.
- Calculate the average to account for minor variations.

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Step 6: Documentn

- Record each trial's time and calculated flow rate.
- Note any anomalies (e.g., air in lines, temperature fluctuations).
- File the completed log sheet in the maintenance records.

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Step 7: Review

- Compare measured flow rates against performance benchmarks.
- Schedule corrective actions (e.g., aerator replacement) if flow exceeds or falls below target values.

