



NOTES ON T-1107.04-1 SHEET 2 AND 3 ARE INTERGRAL PART OF THIS DRAWING



TECHNICAL SERVICES  
 Engineering Services - Works Facilities & Structures

SCALE:	N.T.S.	<b>INSTALLATION DETAILS FOR</b> 37mm AND 50mm POSITIVE DISPLACEMENT WATER METER IN ALL BUILDINGS	DRAWING NUMBER:
DATE:	FEBRUARY 2006		<b>T-1107.04-1</b>
DRAFTING:	V. D./E.S.		SHEET: 1 of 3

**NOTES:**

1. All water meters shall be installed in the horizontal position. By-pass piping may be installed in either the horizontal or vertical position around the water meter. The inlet tee must be installed within 600mm of the point of entry on the floor or wall where the private water service pipe enters the building.
2. Water meters shall be installed with a minimum 1.2 m unobstructed clearance in front of water meter to nearest wall and 500mm unobstructed clearance behind the water meter to the nearest wall. Water meters shall not be installed at a height greater than 550 mm above the floor.
3. By-pass piping shall be installed with a minimum 500mm unobstructed clearance from the outside wall of the by-pass pipe to the nearest ceiling or wall.
4. The working space in front of the meter shall have a minimum of 2.0 meters unobstructed head clearance.
5. All joints shall be soldered, compression type, welded, threaded or flanged. Acid core type solder is not permitted.
6. All piping, including by-pass pipe, tees, bends and valves, except for the tee on the drainage valve shall be the same diameter as the private water service pipe. Pipe reducers required to accommodate a smaller water meter than the private water service pipe shall only be installed between the inlet and outlet valves and shall be attached directly to the valves. All pipe reducers shall be concentric type reducers
7. From the time of the installation of the water meter, the by-pass and flushing valves shall remain closed at all times and shall be sealed by the City.
8. Only gate valves shall be permitted for inlet, outlet, by-pass or flushing valves. No ball valves or butterfly valves shall be permitted. All valves and fittings shall be with rated working pressure of 1,035 kPa. Valves shall be brass or bronze gate valves.
9. All piping shall be either type "L" copper (certified to ASTM B88) or stainless steel pipe rated to a minimum working pressure of 1,035 kPa. For stainless steel pipe, all pipe flanges shall be welded to the pipe. Galvanized, Polyethylene, PVC and other plastic pipe or fittings are not permitted.
10. All check valves, backflow preventers, pressure reducing valves, cross connection control devices and all other such devices shall be located downstream of the outlet tee. No other fittings or connections shall be allowed upstream of such devices.
11. All water meter installations shall conform with the manufacturer's installation instructions.
12. The by-pass valve shall be connected to the inlet tee, the flushing valve shall be connected to the outlet tee and the drainage valve shall be connected to the flushing valve. The drain port tee shall be connected to the upstream side of the outlet valve. All valves shall be configured such that their handles shall not interfere with each other and all valves shall be readily accessible for operation, repair or replacement.
13. Any insulation placed on or around any water meter shall be easily removable and replaceable and shall not contain asbestos or any other toxic or hazardous materials. Such insulation shall not cover or obstruct the water meter register. The City shall not be responsible for any damage to such insulation during any removal or replacement of such insulation.

NOTES CONTINUE ON SHEET 3 OF 3



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14. The room where the water meter is located shall be positioned in the building such that it is adjacent to the outside wall of the building at the point where the private water service pipe enters the building.
15. The room where the water meter is located shall have a door with a minimum opening of 1.0 m wide and 2.2 m high. The floor shall be constructed of waterproof materials. The walls and ceiling shall be constructed of water-resistant materials.
16. The private water service pipe shall be flushed prior to and after the installation of the water meter.
17. For remote readout device wire and conduit installation, refer to City of Toronto Specifications.



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