

NOTES ON T-1107.04-6 SHEET 2 AND 3 ARE INTERGRAL PART OF THIS DRAWING

All dimensions are in millimetres unless otherwise shown.


	ENGINEERING AND CONSTRUCTION SERVICES STANDARD DRAWING		REV 2	APR 2013
	INSTALLATIONS DETAILS FOR 16 mm TO 25 mm POSITIVE DISPLACEMENT WATER METER IN ALL BUILDINGS OTHER THAN SINGLE FAMILY RESIDENTIAL BUILDINGS			
			T-1107.04-6	
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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 shall be installed within 500 mm from 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 300 mm unobstructed clearance behind the water meter to nearest wall. Water meters shall not be installed at a height greater than 450 mm above the floor.
3. By-pass piping shall be installed with a minimum 300 mm 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 1.8 m unobstructed head clearance.
5. All joints shall be soldered, compression type, threaded or welded. Acid core type solder is not permitted. Solder-joint fittings for copper pipe shall conform to ANSI B16.
6. All piping, including by-pass pipe, tees, bends and valves, shall be the same diameter as the private water service pipe.
7. The by-pass and flushing valves shall remain closed at all times and shall be sealed by the City after water meter has been installed.
8. Only gate valves shall be permitted for inlet, outlet, by-pass or flushing valves. No ball valves or butterfly valves shall be permitted. Gate valves shall be designed for a minimum cold water working pressure of 1035 kPa and shall conform to CSA B125.
9. Drainage valve shall be a brass ball valve with brass plug.
10. All piping shall be either type "L" copper (certified to ASTM B88) or stainless steel pipe rated to a minimum working pressure of 1035 kPa. For stainless steel pipe, all pipe flanges shall be welded to the pipe. Galvanized, polyethylene, PVC and other plastic pipe and fittings shall not be allowed.
11. 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.
12. All water meter installations shall conform with the manufacturer's installation instructions.
13. 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.
14. 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.
15. 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.


NOTES CONTINUE ON SHEET 3 OF 3

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- 16. The room where the water meter is located shall have a door with a minimum opening of one metre 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.
- 17. The private water service pipe shall be flushed prior to and after the installation of the water meter.
- 18. For remote readout device wire and conduit installation, refer to City of Toronto specifications.
- 19. When non-metallic pipe is used for the private water service pipe and / or private water pipe downstream of the meter, the section of pipe between the stop and waste valve and full bore ball valve shall be as per note 8 above and shall be fully supported and restrained to prevent movement of the piping around the meter.

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