

THERMAL EXPANSION TANK (FLOOR MOUNTED)

7.6.1.11. Thermal Expansion.

- (1) Where thermal expansion can occur, protection shall be provided for
 - (a) check valves required by Article 7.6.1.5.,
 - (b) backflow preventers required by Sentence 7.6.2.1.(3), and
 - (c) pressure-reducing valves required by Article 7.6.3.3.

A-7.6.1.11.(1) Thermal Expansion. Closed water systems with no expansion to public water systems need to accommodate thermal expansion using one of the following:

- (i) an expansion tank designed for use on the cold or hot potable water system, or
- (ii) an thermal relief valve piped to a drain forming an air break conforming to CSA B125, "Plumbing Fittings".

The installation of a Backflow Preventer on the Water Distribution Piping entering the building creates a closed system in turn creating a situation where the hot water tank can increase pressure within the system through thermal expansion.

The Thermal Expansion Tank absorbs any increase in water pressure caused by thermal expansion prolonging T&P Relief Valves. Tank is pre-charged below incoming supply pressure.

THERMAL EXPANSION TANK SIZING INFORMATION;

MAKE: _____ MODEL: _____

SUPPLY PRESSURE: _____ (kPa / psi)

RELIEF VALVE: _____ (kPa / psi) _____ (°C / °F)

WATER HEATER CAPACITY: _____ (L / GAL)

INITIAL TEMP. SETTING:

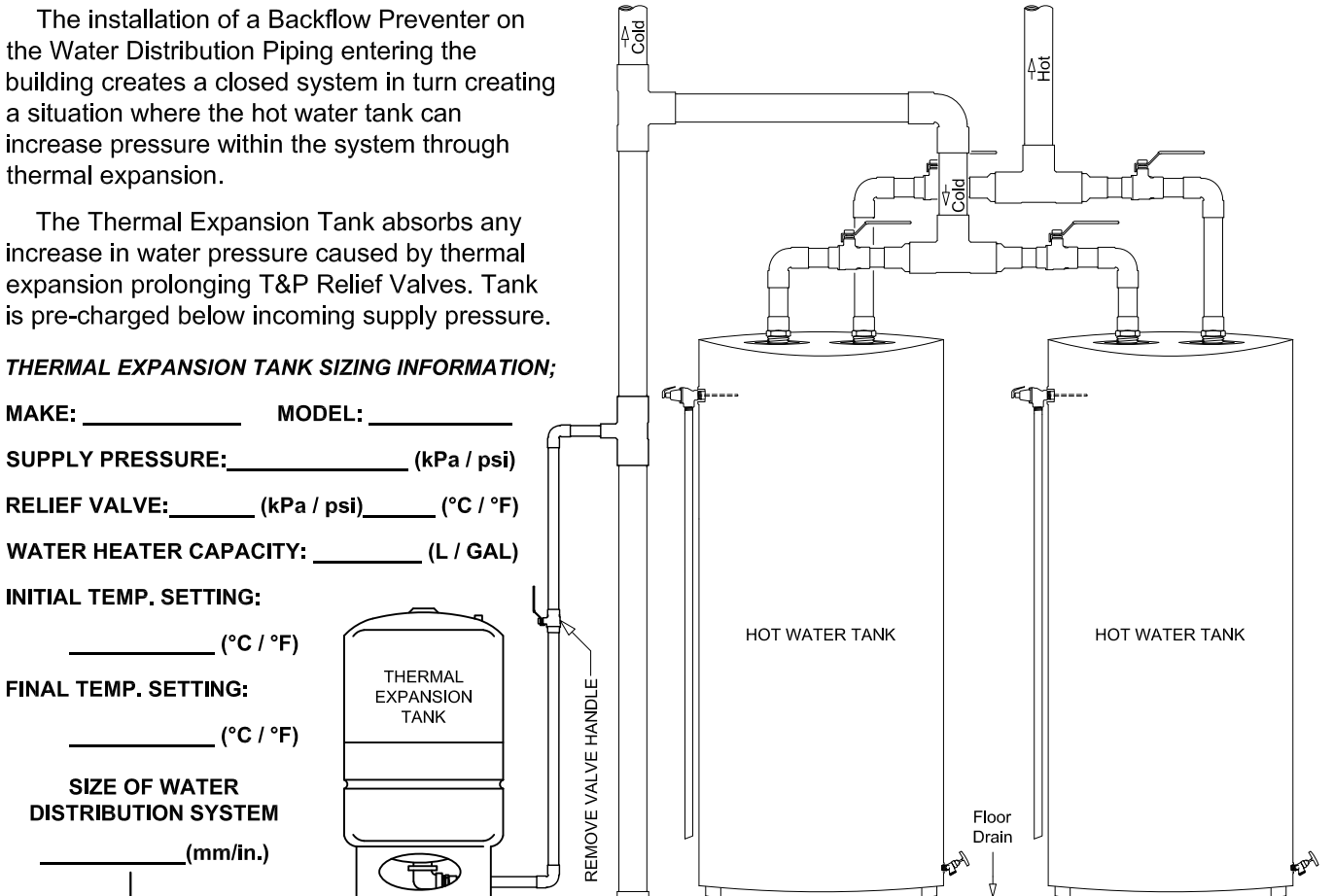
_____ (°C / °F)

FINAL TEMP. SETTING:

_____ (°C / °F)

SIZE OF WATER DISTRIBUTION SYSTEM

_____ (mm/in.)



Note: MINIMUM SIZE OF B.F.P.

The premises isolation backflow preventer shall be sized according to the manufacture's recommendations to avoid excessive pressure loss, and not less than the size of the water distribution pipe connected to the water meter.

Note: Water Meter Bypass Arrangement for New Installations

7.6.1.3.(8) Where the water supply is to be metered, the installation of the meter, including the piping that is part of the meter installation and the valving arrangement for the meter installation, shall be according to the water purveyor's requirements.

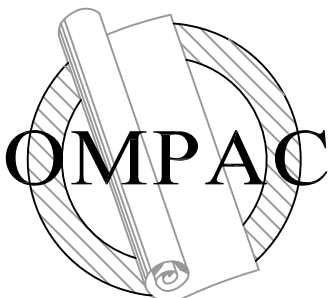
Note: Underground Incoming Service

Pipe: Type K Copper, Brass Epoxy, Coated Welded Steel, Cement Lined Ductile Iron or C-900 PVC

Connections:

Copper - Compression, Victaulic or Solder Joint
Steel and Ductile - Flanged, "Uniflange", "EZ Flange" or Victaulic
PVC - "Uniflange" or "EZ Flange"

Note: Water Meter, Vavles, B.F.P., and bypass must NOT be supported by piping



ONTARIO MUNICIPAL PLUMBING ADVISORY COMMITTEE
Advisory Committee to the Large Municipalities Chief Building Officials Committee

TITLE	Premise Isolation and Thermal Expansion Floor Mounted Tank.		
SCALE	NONE	DWN R. BLUNDELL	April 6, 2025 update
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