

THERMAL EXPANSION RELIEF (T.E.R.) VALVE

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.

Combination Thermal Expansion Relief/Ball Valves are specifically designed to provide both a cold water supply shut-off to the hot water tank while also providing protection against any increase in water pressure caused by thermal expansion.

**C.S.A. CERTIFIED
THERMAL EXPANSION
RELIEF (T.E.R.)
VALVE/BALL VALVE**

MAKE: _____

MODEL: _____

**SIZE OF WATER
DISTRIBUTION
PIPING**

(mm/in.)

**TYPE OF BACKFLOW
PREVENTER**

- Du.C.
- D.C.V.A.
- R.P.

**SIZE OF WATER
METER**
(mm/in.)

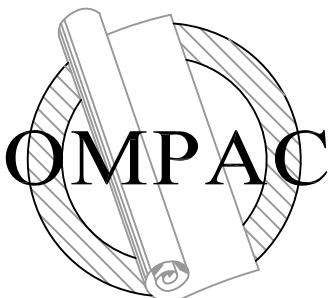
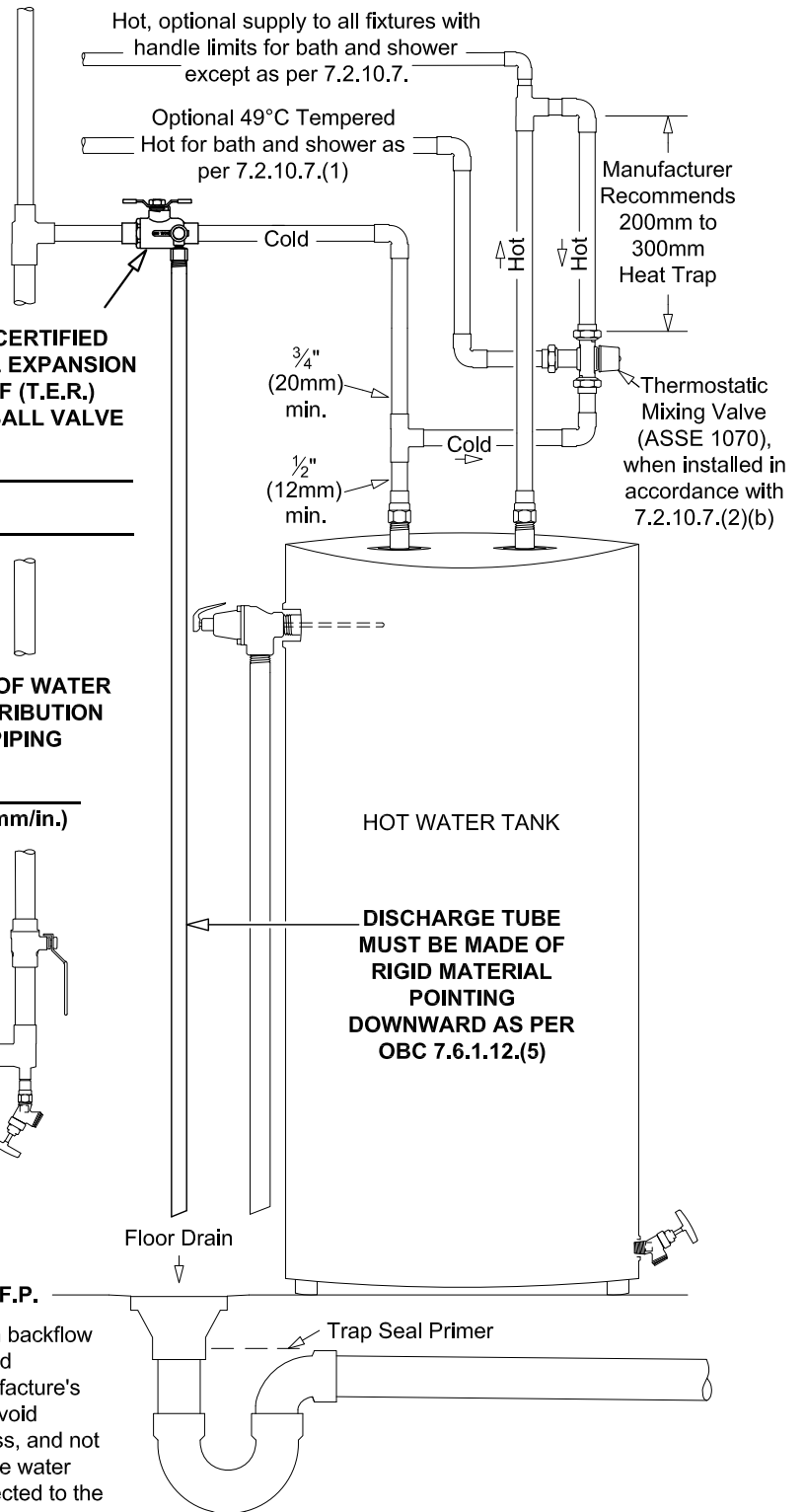
**SIZE OF WATER
SERVICE**

- 1" (25mm)
- ¾" (20mm)
- ½" (12mm)

Note:

MINIMUM SIZE OF B.F.P.

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



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

TITLE Premise Isolation and Thermal Expansion for Water Services up to 1-inch diameter

SCALE NONE DWN R. BLUNDELL March 29, 2025 update

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