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BULLETIN 2016-008-PL

*August 8, 2016*

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## Stainless Steel Piping

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This bulletin clarifies that the stainless steel piping and fittings of types 304L or 316L, and meeting the specific requirements described herein are permitted in potable water systems as part of a generic alternative.

The City of Vancouver Building By-law - Book II (Plumbing By-law) does not presently provide the option of using stainless steel pipe and fittings for domestic potable water systems.

### 2.2.6.7 Steel Pipe

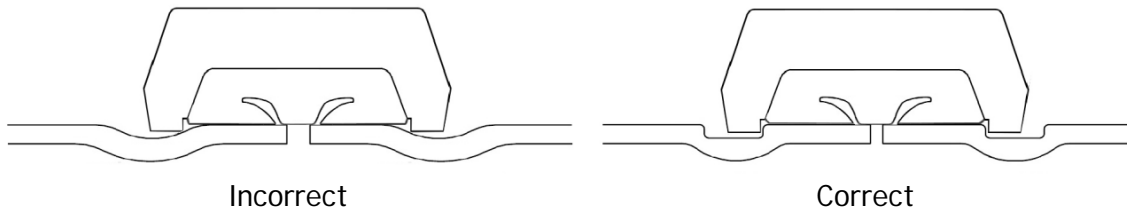
- 1) Except as provided in sentences (2) and (3), welded and seamless steel pipe shall not be used in a plumbing system.
- 2) Galvanized steel pipe is permitted to be used in a drainage system or a venting system above ground inside a building.
- 3) Galvanized steel pipe and fittings shall not be used in the water distribution system, except
  - a) in buildings of industrial occupancy is described in the Book 1 (General) of this By-law; or
  - b) for the repair of existing galvanized steel piping systems.

Stainless Steel has consistently demonstrated the ability to perform as well as other materials that are permitted for use within the Plumbing by-law. In recognition of this, the National Plumbing Code of Canada has recently included the use of Stainless Steel in the National Code. This has been subsequently incorporated in to the BC Building Code and will shortly be incorporated into the Vancouver Building By-law, as directed by City Council on June 27, 2016.

This bulletin clarifies that in addition to the provisions identified in Section 2.2.6 of the Vancouver Plumbing By-Law 2014, and pending future revision to the Vancouver Building By-law, that the use of Stainless steel pipe and fittings be permitted as a generic alternative provided that the following conditions are satisfied:

- A) Stainless steel pipe shall be a minimum type 304L, Sch.10 or greater and shall comply with ASTM A312/A312M, NSF/ANSI 372 and ASME B36.19M;
- B) Stainless steel fittings shall be minimum type 304L and shall comply with ASTM A403, A351, NSF/ANSI 372, A182;
- C) All coupling gaskets are to be certified to NSF/ANSI 372 or ANSI/NSF 61;
- D) Pipe insulation must have a leachable chloride content of less than 0.05%;
- E) Piping must be designed to avoid sections without flow (Dead Ends) ;
- F) Waterways or brass dielectric fittings are required when transitioning to dissimilar metals;

- G) Pipe hangers are to be oversized to allow for continuous insulation or shall be of the same material as the piping; and
- H) All stainless steel piping to be grooved and constructed using tools specifically designed for light wall stainless steel pipe. All groove profiles are to meet the fitting manufacturer's guidelines and conform to CSA-B242.



Furthermore, a letter from the a professional engineer licensed to practice in the province of British Columbia detailing the design and installation of the stainless steel domestic system will be required to accompany the plumbing permit application where a mechanical engineer has been retained.

(Original signed by)

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