

**INTERPRETATION IC 15-2022-14 OF
ANSI/ASHRAE STANDARD 15-2022
SAFETY STANDARD FOR REFRIGERATION SYSTEMS**

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Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 15-2022, Section 9.3.1.1, regarding Refrigerant-Containing Pressure Vessels less than 6 in.

Background: When AHJs are reviewing projects, they must determine whether or not a device meets the requirements for *pressure vessels* and is subject to the requirements of Section 9.3 Refrigerant-Containing Pressure Vessels.

Plate-type heat exchangers are often used as components of refrigerating systems. The spacing of the plates in these heat exchangers is often less than 6 inch width.

Standard 15-2022 states:

9.3 Refrigerant-Containing Pressure Vessels

9.3.1 Inside Dimensions 6 in. (152 mm) or Less. These vessels have an inside diameter, width, height, or cross-sectional diagonal not exceeding 6 in. (152 mm), with no limitation on length of vessel.

9.3.1.1 *Pressure vessels having inside dimensions of 6 in. (152 mm) or less shall be*

- a. *listed* either individually or as part of an assembly by a *nationally recognized testing laboratory*;
- b. marked directly on the vessel or on a nameplate attached to the vessel with a “U” or “UM” symbol signifying compliance with *ASME Boiler and Pressure Vessel Code*¹⁵, Section VIII; or
- c. when requested by the authority having jurisdiction (AHJ), the *manufacturer shall* provide documentation to confirm that the vessel meets the design, fabrication, and testing requirements of *ASME Boiler and Pressure Vessel Code*, Section VIII.

Pressure vessels having inside dimensions of 6 in. (152 mm) or less shall be protected by either a pressure relief device or a fusible plug.

Exception to 9.3.1.1: Vessels having an internal or external *design pressure* of 15 psig (103.4 kPa gage) or less.

Interpretation #1:

In a plate-type heat exchanger, the inside dimensions of concern are (a) the perpendicular

distance between any two plates, (b) the inner diameter of connection nozzles, and (c) the void space used for fluid distribution from nozzles to plates. If neither (a) nor (b) exceed 6 inches, and (c) has an inner diameter not exceeding 6 inches with no limitation on length, then the requirements of Section 9.3.1.1 apply.

Question #1: Is this Interpretation correct?

Answer #1: Yes

Comments #1:

Interpretation #2: For the case of pressure vessels having inside dimensions of 6 in. or less, any one of the three requirements of Section 9.3.1.1 are sufficient for compliance, either 'a' or 'b' or 'c'.

Question #2: Is this Interpretation correct?

Answer #2: Yes

Comments #2: