IAPMO IGC 327-2016

Flexible Metallic Expansion Joints for Pressure Systems

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1 Scope

1.1 Scope

1.1.1 This Standard covers ½-NPS to 12-NPS flexible metallic expansion joints intended for use in pressure systems to absorb fluctuations in the system due to thermal expansion and contraction and building structural movements. The standard specifies requirements for materials, physical characteristics, performance testing, and markings.
Note: *In this Standard, "flexible metallic expansion joints intended for plumbing and non-plumbing pressure systems" are referred to as "flexible pipe loops".*

1.1.2 Flexible pipe loops covered by this standard consist of two parallel sections of flexible hose joined to a rigid 180° return bend. The return bend may be a continuous pipe or tube or two 90° elbows. The flexible hose may be made up of a flexible tube, outer braid and an inner liner. An example of a flexible pipe loop and a flexible hose are shown is shown in Figure 1.

1.2 Alternative Materials

The requirements of this Standard are not intended to prevent the use of alternative materials or methods of construction provided such alternatives meet the intent and requirements of this Standard.

1.3 Terminology

In this Standard,

(a) "shall" is used to express a requirement, i.e., a provision that the user is obliged to satisfy to comply with the Standard;
(b) "should" is used to express a recommendation, but not a requirement;
(c) "may" is used to express an option or something permissible within the scope of the Standard; and
(d) "can" is used to express a possibility or a capability.

Notes accompanying sections in the body of the Standard do not specify requirements or alternative requirements; the purpose of notes is to separate from the text explanatory or informative material. Notes to tables and figures are considered part of the table or figure and can be written as requirements.

1.4 Units of Measurement

SI units are the primary units of record in global commerce. In this Standard, the inch/pound units are shown in parentheses. The values stated in each measurement system are equivalent in application, but each unit system is to be used independently. All references to gallons are to U.S. gallons.