

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and Divisions 00 and 01, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following.

- 1. Submittals.
 - 2. Flexible connectors.

1.3 SUBMITTALS

- A. Product Data: Provide submittals of the following:

- 1. Braided Flexible Hose Connectors
 - 2. Rubber Flexible Connectors
 - 3. Flexible Expansion Loops

- B. Shop Drawings: None required.

- C. Reports and Certificates: None required.

1.4 CODES AND STANDARDS

- A. Codes and Standards shall be the current version adopted by the Authority Having Jurisdiction.

1.5 QUALITY ASSURANCE

- A. Comply with the Reduction of Lead in Drinking Water Act of 2011 for domestic water systems. This act redefines "lead free" as "not containing more than 0.2 percent lead when used with respect to solder and flux and not more than a weighted average of 0.25 percent lead when used with respect to wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures". Products required to be "lead free" shall have NSF 61-G or NSF 372 certification.

PART 2 – PRODUCTS

2.1 BASIC, COMMON FEATURES

- A. Lead free products and materials shall be used for Domestic Water Piping Systems.

2.2 FLEXIBLE CONNECTORS

- A. Braided Hose Flexible Connectors: Stainless steel bellows with woven, flexible, wire-reinforcing protective jacket; 150-psig minimum working pressure and 250 deg F maximum operating temperature. Connectors shall have flanged or threaded-end connections to match equipment connected and shall be capable of 3/4-inch misalignment. Bronze braiding for copper tubing applications and stainless steel braiding for steel pipe applications.

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Braided Hose Flexible Connectors:
 - 1) Flex-Hose Co, Inc.
 - 2) Hyspan Precision Products, Inc.
 - 3) Mason.
 - 4) Mercer Rubber Co.
 - 5) Metraflex Co.
 - 6) Or Approved Equal
- B. Rubber Flexible Connectors: Mason SFU for 3/4 to 2-inch NPS or equal by other specified manufacturers; Mason SFDEJ for 2-1/2-inch NPS and larger or equal by other specified manufacturers. Fiber-reinforced EPDM rubber body; capable of handling operating temperatures up to 250 deg F and pressures up to 150 psig. Joint type to match system specification.
 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Rubber Flexible Connectors:
 - 1) General Rubber Corp.
 - 2) Flex-Hose Co., Inc.
 - 3) Mercer Rubber Co.
 - 4) Metraflex Co.
 - 5) Mason.
 - 6) Or Approved Equal
- C. Flexible Expansion Loops: Stainless steel flexible hose and braid consisting of two flexible sections, two 90 degree elbows and one 180 degree return bend. Pipe connection material and joint type to match system specification, see application section of individual sections. Bronze braiding for copper tubing applications and stainless steel braiding for steel pipe applications. Provide pipe guides as recommended by manufacturer. Loops installed hanging down shall have a drain plug. Units shall be [single][double] braided. Movement and/or loop lengths are indicated.
 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Flexible Expansion Loops:
 - 1) Metraflex Co.
 - 2) Flex-Hose.
 - 3) Or Approved Equal
- D. Flexible Expansion Loops: Three equal length sections of annular corrugated stainless steel hose and braid, Provide with four 90 degree elbows and support per manufacturer's recommendations. Ends flanged, screwed, welded, sweat, or grooved. Suitable for operating temperatures up to 850 F. Designed for pressure testing to 1.5 times their maximum rated work

ing pressure with a minimum 4 to 1 (burst to working) safety factor. Factory tested using air-under-water and hydrostatic pressure. Manufacturer: Flex-Hose Company.

PART 3 – EXECUTION

3.1 GENERAL PLUMBING INSTALLATIONS

- A. General: Sequence, coordinate, and integrate the various elements of plumbing systems, materials, and equipment. Comply with the following requirements:
1. Install flexible connectors according to manufacturer's written instructions where indicated and specified in other piping sections.
 2. Install flexible expansion loops according to manufacturer's written instructions where indicated and specified in other piping sections.

END OF SECTION