

Material Specification – 3

DUCTILE IRON WATERWORKS FITTINGS

1. GENERAL

DI fittings shall be manufactured in accordance with AWWA C110 or C153, as applicable, with the following additional requirements or exceptions.

2. JOINT TYPE

Fittings installed in City and County of Denver and Total Service Contract Areas shall be furnished with mechanical joint ends. Mechanical joint components shall be in accordance with AWWA C111 with tee-head bolts and hexagon nuts fabricated from a high-strength, low alloy steel known in the industry as Cor-Ten, Usalloy, or Durabolt. Flanges shall be machined to a flat surface with a serrated finish in accordance with AWWA C207.

Accessories for the mechanical joint shall consist of the gasket, gland, and fasteners and shall be furnished and packaged separately from valves. Each package shall be labeled in a manner as to provide for proper identification, and the number of units shall be listed per package or bundle.

3. PRESSURE RATING

DI fittings nominal sizes 3-inch through 20-inch shall have a pressure rating of 350 psi.

4. MATERIAL STRENGTH

The grade of DI shall be 70-50-05 or 65-45-12.

5. LININGS AND COATINGS

DI fittings shall be coated with an asphaltic material, lined with cement-mortar in accordance with AWWA C104. DI fittings may also be lined and coated with fusion-bonded epoxy in accordance with AWWA C116.

6. QUALITY CONTROL

The Manufacturer shall submit a written statement that the inspection and all specified tests have been completed and that results comply with the requirements of these Standards. Components in contact with potable water shall be certified to comply with NSF/ANSI 61, and a copy of the NSF/ANSI 61 certification shall be provided to Denver Water, if requested.

7. APPROVED MANUFACTURERS

Sigma
SIP Industries
Star Pipe Products
Tyler Union
U. S. Pipe and Foundry Company

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