

**CITY OF AKRON, OHIO
DEPARTMENT OF PUBLIC SERVICE
WATER SUPPLY BUREAU**

SPECIFICATIONS FOR DUCTILE IRON PIPE

SPECIFICATIONS

All ductile iron pipe shall be manufactured by the centrifugal casting process. Detailed specifications for the manufacture of the pipe bid upon shall accompany each bid.

The City of Akron reserves the right to reject any or all proposals and to waive informality in any proposal.

Only domestically manufactured ductile iron pipe can be utilized, with those manufacturers being members in good standing with the Ductile Iron Pipe Research Association.

The bidder shall furnish sound and complete in all respects and in strict conformity with all conditions and requirements of these specifications, approximately the quantities of cast ductile iron pipe with push-on joints complete with gaskets, and lubricants. All pipes shall be cement lined and coated at the facility the pipe was manufactured.

All centrifugally cast ductile iron pipe shall be manufactured in strict conformity with the latest revision of the American National Standard Ductile Iron Pipe, ANSI/AWWA C151/A21.51.

Centrifugally cast ductile iron pipe shall have the following barrel dimensions:

<u>Nominal Inside Diameter</u>	<u>Class</u>	<u>Barrel O.D.</u>	<u>Thickness of Pipe</u>
4 inches	53	4.80 inches	0.32 inches
6 inches	53	6.90 inches	0.34 inches
8 inches	53	9.05 inches	0.36 inches
10 inches	53	11.10 inches	0.38 inches
12 inches	53	13.20 inches	0.40 inches

Each diameter of ductile iron pipe ordered shall have a laying length of 18 or 20 feet, two inches (18' - 2" or 20' - 2") plus or minus (\pm) one inch (1"), exclusive of socket depth. Pipes delivered in lengths outside the specified limits will be rejected.

Spigot ends of each pipe shall be beveled and deburred before coating.

Each pipe shall be subjected to a hydrostatic test pressure in accordance with the latest revision of ANSI/AWWA C151/A21.51, Section 51-10.

Every pipe shall be marked in accordance with the latest revision of ANSI/AWWA C151/A21.51, Section 51-11.

All pipe shall be thoroughly clean and subjected to a careful hammer inspection. No pipe shall be coated or lined unless entirely clean and free from rust immediately before being dipped or lined.

Cement lined pipe 4 inches through 12 inches shall be lined in accordance with the manufacturer's standard, which shall meet or exceed the standards described in the latest revision of ANSI/AWWA C104/A21.4.

Every pipe shall be coated on the outside with a standard bituminous coating. The type of coating proposed to be used by the manufacturer shall be specified in the proposal (coal base or asphalt coat).

Any pipe that is to be recoated shall first be thoroughly scraped and cleaned.

Gaskets and lubricant furnished under these specifications for push-on joints shall be manufactured in accordance with the latest revision of the American Nation Standard for Rubber Gasket Joints for Cast Iron Pipe, ANSI/AWWA C111/A21.11.

All pipes must be delivered in all respects sound and conformable to these specifications. The inspection shall not relieve the bidder of any of their obligations in this report, and any defective pipe which may have been approved by the City at the Works or elsewhere shall be at all times liable to rejection when discovered until they have been accepted at the agreed point of delivery. Care shall be taken in handling the pipes as not to injure the coating and no pipes or other material shall be placed in the pipes during transportation.

The City shall have the liberty at all times to inspect the material at the foundry and the molding, castings, and lining and coating of the pipes. The forms, sizes, uniformity and condition of all pipes herein referred are subject to the City's inspection and approval, and may be rejected, without proving, any pipe which is not in conformity with the specifications or drawings.

Should the City have no inspector at the Works, the Bidder shall furnish a sworn statement that the inspection and all of the specified tests have been made and the results thereof comply with the requirements of this standard.

No centrifugally cast pipe shall be accepted, the weight of which is less than the tabulated weight by more than five (5) percent of pipe 12 inches or smaller in diameter.

The price for ductile iron pipe shall include the entire cost of furnishing, testing, inspecting, lining, and delivering the pipe as herein provided together with gaskets, lubricant, and provision for electrical thawing.