

SECTION 127

STEEL WATER PIPE

127.1 GENERAL

This specification covers steel pipe and the interior and exterior protective coating for use only in connections to or repair of water supply and distribution systems carrying water under pressure.

127.2 REFERENCES

127.2.1 ASTM

A 53

127.2.2 AWWA

C 200
C 207
C 201
C 203
M 11
C 204

127.2.3 ANSI

B 16.5

127.2.4 Asphalt Institute
Construction Series No. 96, Specifications
M-2

127.3 PIPE

127.3.1 Pipe 6 inches and larger in diameter of either the fabricated or mill type shall be manufactured in accordance with AWWA C 200. Specific pipe type (fabricated or mill) shall be as specified in the Supplementary Specifications.

127.3.2 Wall thickness for steel pipe 6 inches and larger shall be based on the computation techniques contained in AWWA M-11, Steel Pipe Design Manual, computations shall take into consideration internal pressure, external pressure and any special physical loading.

127.3.3 Pipe in sizes less than 6 inches in diameter shall be in accordance with ASTM A 53, standard weight (Schedule 40).

127.3.4 Working pressure of 150 psi shall be used for pipe design.

127.4 FITTINGS

Fittings for pipe 4 inches and larger in diameter shall be fabricated of the same kind

of steel and same wall thickness as the pipe to which they are to be connected. Dimensions shall be as shown in AWWA C 208.

127.5 FLANGES

Flanges shall be slip-on type conforming to AWWA C 207 drilled as specified in ANSI B 16.5.

127.6 JOINTS

127.6.1 Steel pipe shall be prepared for one of the following types of joints as noted on the plans or specified in the Supplementary Specifications:

127.6.1.1 Bell-and-spigot ends prepared for O-ring rubber gaskets.

127.6.1.2 Lap joints for field welding.

127.6.1.3 Beveled ends for field butt welding.

127.6.1.4 Plain ends fitted with butt straps for field welding.

127.6.1.5 Ends prepared for mechanical coupled field joints.

127.6.1.6 Plain ends fitted with flanges.

127.6.2 Unless otherwise shown on the plans or specified in the Supplementary Specifications, the pipe joints shall comply with AWWA Standards. Joints tolerances shall not exceed those specified in AWWA C 201.

127.7 COATINGS

Exterior of steel pipe and fittings shall be coated with coal-tar enamel. Coating shall be in accordance with AWWA C 203.

127.8 MEASUREMENT AND PAYMENT

Measurement shall be by the linear foot along center line of pipe through all fittings. Payment shall be made on the unit price per linear foot.