

SECTION 40 27 00.10 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS		
Item	Size	Description
General	All	Physical Characteristics: Poly-Vinyl-Chloride (PVC) pipe and fittings. Pipe and fittings shall be manufactured with titanium dioxide for ultraviolet protection. Functional Characteristics: Service Flow Streams on Piping Schedule in Drawings. Performance Characteristics: Materials in contact with potable water shall conform to NSF 61 acceptance.
Pipe	All	Performance Characteristics: Schedule 80 PVC: Type I, Grade I or Class 12454-B conforming to ASTM D1784 and ASTM D1785.
Secondary Containment Pipe	All	Performance Characteristics: Schedule 40 PVC: Type I, Grade I or Class 12454 conforming to ASTM D1784 and ASTM D1785. Pipe shall be manufactured with titanium dioxide for ultraviolet protection.
Fittings	All	Performance Characteristics: Schedule to Match Pipe Above: ASTM D2466 and ASTM D2467 for socket weld type and Schedule 80 ASTM D2464 for threaded type.
Joints	All	Performance Characteristics: Solvent socket weld except where connection to flanged valves and equipment.
Flanges	All	Performance Characteristics: One-piece, molded hub type PVC flat face flange in accordance with Fittings above, ASME B16.1, Class 125 drilling

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Bolting	All	Performance Characteristics: Flat Face Mating Flange and in Corrosive Areas: ASTM A193/A193M, Type 316 stainless steel Grade B8M hex head bolts, ASTM A194/A194M Grade 8M hex head nuts and ASTM F436 Type 3 alloy washers at nuts and bolt heads. Achieve 40 percent to 60 percent of bolt minimum yield stress. With Raised Face Mating Flange: Carbon steel ASTM A307 Grade B square head bolts, ASTM A563 Grade A heavy hex head nuts and ASTM F436 hardened steel washers at nuts and bolt heads. Achieve 40 percent to 60 percent of bolt minimum yield stress.
Gaskets	All	Performance Characteristics: Flat Face Mating Flange: Full faced 1/8-inch thick ethylene propylene (EPR) rubber. Raised Face Mating Flange: Flat ring 1/8-inch ethylene propylene (EPR) rubber with filler gasket between OD of raised face and flange OD to protect the flange from bolting moment.
Solvent Cement	All	Performance Characteristics: Socket type joints shall be made employing solvent cement that meets or exceeds the requirements of ASTM D2564 and primer that meets or exceeds requirements of ASTM F656, chemically resistant to the fluid service, and as recommended by pipe and fitting manufacturer. Solvent weld cement for PVC pipe joints in sodium hypochlorite service shall be free of silica filler and shall be certified by the manufacturer to be suitable for that service, IPS Weld-On P-70 primer and 725 cement, or equal. Certification shall be submitted. Solvent cement and primer shall be listed by NSF 61 for contact with potable water.

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Item	Size	Description
Thread Lubricant	All	Performance Characteristics: Polytetrafluoroethylene (PTFE) tape.

END OF SECTION

