

DATA SHEET – CARBON STEEL PIPE AND FITTINGS – LARGE DIAMETER

Item	Size	Description
Pipe	All	Black carbon steel, ASTM A139, Grade B; ASTM A283, Grade D; ASTM A570, Grade 33 or AWWA C200 with ASTM A36 plate.
	Welded and grooved:	
	1050 mm	1067 mm outside diameter, 9.5 mm min. wall thickness
	1200 mm	1219 mm outside diameter, 9.5 mm min. wall thickness
	1350 mm	1372 mm outside diameter, 9.5 mm min. wall thickness
	1500 mm	1543 mm outside diameter, 9.5 mm min. wall thickness
	1800 mm	1854 mm outside diameter, 12.7 mm min. wall thickness
	2100 mm	2162 mm outside diameter, 14.3 mm min. wall thickness
Joints	All	Butt-welded or flanged at valves and equipment, or grooved end meeting the requirements of AWWA C606.
Fittings	1050 mm to 2100 mm	<p>Butt Welded: Wrought carbon steel butt-welding, ASTM A234/A234M, Grade WPB meeting the requirements of ANSI B16.9; fitting wall thickness to match adjoining pipe; long radius elbows unless shown otherwise.</p> <p>As an alternative, mitred fittings may be used. Wall thickness, material and pipe outside diameter to equal pipe being joined. Reinforce fittings to match pressure rating of pipe being joined to ANSI B31.3 and AWWA M11.</p> <p>Grooved End: Malleable iron ASTM A47 or ductile iron ASTM A536, grooved ends to accept couplings without field preparation, EPDM elastomers for potable water service, rigid style coupling or as otherwise noted. Victaulic; Grinnell. Provide Type “D” Vic-ring.</p> <p>Victaulic Depend-O-Lok, AWWA C221, EPDM elastomer, epoxy coated steel or 316 stainless steel wetted parts, restrained or non-restrained coupling as indicated on Drawings.</p>
Flanges	1050 mm to 2100 mm	<p>Steel, AWWA C207, Class D, ANSI B16.5, Class 125, slip-on, flat faced, serrated finish.</p> <p>Cast Iron Mating Flange: AWWA C207, Class D, hub type, flat faced, ANSI B16.1, Class 125 drilling.</p>
Blind Flanges	All	
Bolting	Exposed piping	Flanges: Carbon steel ASTM A307, Grade A hex head bolts and ASTM A563, Grade A hex head nuts. Use 3

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		mm undersize bolting material for insulating flanges. Grooved End Couplings: Carbon steel, ASTM A183 bolts and nuts, 760 MPa minimum tensile strength.
	Submerged and underground piping	General Conditions: Type 316, ASTM A193/A193M, Grade B8M hex head bolts and ASTM A194/A194M Grade 8M hex head nuts.
Gaskets	All flanges	Water Service: 6.4 mm thick, black neoprene, full face type. Grooved Couplings: EPDM per ASTM D2000 for water and air to 110°C.

Notes:

1. For piping 900 mm and smaller follow Specification 15200-03.
2. When indicated in the Piping Schedule, provide internal/external epoxy coating as specified.
3. Do not use threaded connections on epoxy coated pipe. For small tappings such as vents, drains and gauge connections, provide a 50 mm flanged nozzle with a coated blind flange tapped to the size of the required connection.
4. Design and install pipe in accordance with AWWA M11, Steel Pipe – A Guide for Design and Installation.

END OF SECTION