

Potable Water Piping Specification - Ductile Iron

PRESSURE-TEMPERATURE RATINGS (0.000" Corrosion Allowance)		PIPE MATERIAL Ductile Iron
Temp.C 0 to 107	Max. Hydro.	SERVICE
Temp.F 32 to 225	Test Press.	Potable Water (1)
Press. psig 80	120psi minimum hydro.= 1.5 times working pressure. (Minimum hold time per NFPA 24 is 2 hours for domestic US locations)	
FLOW COEFFICIENT	C=140 (Hazen-Williams)	
JOINT DEFLECTION	See Table 1	
INSTALLATION METHODS	Installation of Ductile Iron Water Mains and their appurtenances, ANSI/AWWA C600-87	
PIPE (2,3,4,7)	4 to 12 Ductile Iron, Restrained Push-on Joint, in accordance with ANSI/AWWA C151/A21.51, Class 350, standard cement mortar lining per ANSI/AWWA C104/A21.4, Gaskets per ANSI/AWWA C111/A21.11.	
ELBOWS (2,3,4,7)	4 to 12 ELL (11-1.4, 22-1/2, 45, 90), POxPO, DI, ANSI/AWWA C153/A21.53, Gaskets per ANSI/AWWA C111/A21.11, cement lining per ANSI/AWWA C104/A21.4.	
TEES (2,3,4,7)	4 to 12 Tee, POxPO, DI, ANSI/AWWA C153/A21.53, Gaskets per ANSI/AWWA C111/A21.11, cement lining per ANSI/AWWA C104/A21.4.	
TIE-INS (5,6)	4 to 24 MJ Solid Sleeve, Short, DI, ANSI/AWWA C153/A21.53 or ANSI/AWWA C111/A21.11, w/Gaskets, Bolts & Ductile Iron Retainer Glands, cement lined per ANSI/AWWA C104/A21.4.	
FLANGE ADAPTER (4,7,8)	4 to 12 Flange Adapter, CL125# FF Flange one end x plain end w/Bevel, ANSI/AWWA C110/21.1, cement lined per ANSI/AWWA C104/A21.4.	
	4 to 12 Flange X Bell Adapter, CL125# FF Flange one end x Push-on bell ANSI/AWWA C110/21.1, cement lined per ANSI/AWWA C104/A21.4.	

NOTES

- 1) All systems should be flushed in accordance with the following minimum flow rates are preferred. NPS 4-400 gpm (25dm /sec), NPS 6-900 gpm (57 /sec), NPS 8-1600 gpm (220dm /sec), NPS 14 and larger-4500 gpm (284dm /sec).
- 2) Gaskets for Ductile Iron Pipe and Fittings to be furnished with the pipe and fittings - packed separately.
- 3) Gasket Lubricant to be compatible with gasket material and furnished by pipe manufacturer.
- 4) Typical corrosion protection for Ductile Iron Piping Systems, all pipe, valves, fittings and appurtenances below grade to be encased in loose polyethylene wrap or tubes per ANSI/AWWA C105/A21.5.
- 5) All Mechanical Joint bolts and nuts to be high-strength, low alloy Corr-Ten or equal.
- 6) Mechanical Joint Retainer Glands to be used on all M.J. connections in restrained systems. Retainer Glands to be Mega-Lug Retainer Glands, by EBBA Iron or equal.
- 7) All Flange Connections to be compatible with Class 125, flat faced per ANSI B16.1.