



TECHNICAL SPECIFICATION

CIOD Pressure Pipe AWWA C900 Western Canada

SCOPE

This specification covers the requirements for PVC (polyvinyl chloride) pressure pipe with bell and spigot joints utilizing a double seal locked in (DSL) gasket and manufactured in Abbotsford, BC. The pipe is Cast Iron Outside Diameter (CIOD) in nominal sizes of 4" – 18". This pipe meets the requirements of the American Water Works Association (AWWA) Standard C900-16 and is certified to the Canadian Standards Association (CSA) Standard B137.3, The National Sanitation Foundation (NSF) Standard 61, Underwriters Laboratories of Canada (ULC) ULC/ORD-C1285/Underwriters Laboratories (UL) Standard 1285 and Factory Mutual (FM) Standard 1612.

MATERIALS

The pipe is manufactured from virgin PVC compound meeting the cell classification requirements of 12454 as defined by the American Society of Testing and Materials (ASTM) Standard D1784: *Standard Specification for Rigid PVC Compounds and CPVC Compounds*. These compounds have a hydrostatic design basis rating of 4000 psi for water at 73.4 Deg F. The compound is certified to NSF Standard 61-G.

MARKING

Pipe markings are as specified by CSA, AWWA, NSF, FM and ULC/UL.

PIPE

The pipe is manufactured for pressure classes 165 psi (DR25), 235 psi (DR18) and 305 psi (DR14) as defined by AWWA C900-16.

GASKETS

The pipe utilizes a double seal locked (DSL) gasket system that meets the requirements of ASTM D3139: *Standard Specification for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals*. The gaskets are reinforced with a steel band and conform to the requirements of ASTM F477: *Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe*. The standard gasket material for these products is SBR.

TEST REQUIREMENTS

Quality testing is as per NAPCO's Quality Assurance program and in accordance with CSA, AWWA, NSF, FM and ULC/UL.

JOINT DEFLECTION

For C900 pipe manufactured in Abbotsford, BC, the maximum allowable angular joint deflection for 4" to 12" trade sizes is 2 degrees, for trade sizes 14" and larger the maximum allowable angular joint deflection is 1 degree. This allowable joint deflection is also marked on each length of pipe.



PIPE DIMENSIONS

Nominal Size in (mm)	Outside Diameter, OD (in)	Wall Thickness, s (in)			Approximate Bell OD, BOD (in) (Based on DR18)	Average Bell Depth, BD (in)
		DR25*	DR18	DR14		
4 (100)	4.791 - 4.809	0.192 – 0.214	0.267-0.296	0.343 – 0.381	6.1	4 ½
6 (150)	6.890 - 6.911	0.276 – 0.307	0.383-0.429	0.493 – 0.551	8.6	5 ½
8 (200)	9.039 - 9.065	0.362 – 0.405	0.504-0.559	0.646 – 0.724	11.1	7 ½
10 (250)	11.085 - 11.115	0.445 – 0.496	0.618-0.688	0.793 – 0.885	13.5	8
12 (300)	13.185 - 13.215	0.528 – 0.590	0.733-0.822	0.943 – 1.056	16.0	8 ½
14 (350)	15.285 – 15.314	0.614 – 0.685	0.850 – 0.952		18.5	11 ¼
16 (400)	17.382 – 17.420	0.696 – 0.780	0.968 – 1.082		21.0	11 ½
18 (450)	19.480 – 19.520	0.779 – 0.874	1.083 – 1.212		23.6	11 ½

*Not FM Certified

