



## **TECHNICAL SPECIFICATION**

### **CIOD Pressure Pipe AWWA C900 Eastern 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 Woodbridge, ON. The pipe is Cast Iron Outside Diameter (CIOD) in nominal sizes of 4" – 24". 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 14, Underwriters Laboratories of Canada (ULC) ULC/ORD-C1285/Underwriters Laboratories (UL) Standard 1285, Factory Mutual (FM) Standard 1612 and Bureau de Normalisation du Quebec (BNQ) Standard NQ 3624-250.

#### **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, ULC/UL and BNQ.

#### **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, ULC/UL and BNQ.

#### **JOINT DEFLECTION**

For C900 pipe manufactured in Woodbridge, ON, the maximum allowable angular joint deflection for all trade sizes 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)	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	5 3/8
6 (150)	6.890 - 6.911	0.276 – 0.307*	0.383-0.429	0.493 – 0.551	8.6	6 1/8
8 (200)	9.039 - 9.065	0.362 – 0.405*	0.504-0.559	0.646 – 0.724	11.1	7 3/8
10 (250)	11.085 - 11.115	0.445 – 0.496*	0.618-0.688	0.793 – 0.885	13.5	7 5/8
12 (300)	13.185 - 13.215	0.528 – 0.590*	0.733-0.822	0.943 – 1.056	16.0	8 5/8
14 (350)	15.285 – 15.314	0.614 – 0.685*	0.850 – 0.952		18.5	11 1/4
16 (400)	17.382 – 17.420	0.696 – 0.780*	0.968 – 1.082		21.0	11 1/2
18 (450)	19.480 – 19.520	0.779 – 0.874	1.083 – 1.212		23.6	11 1/2
20 (500)	21.575 – 21.622	0.866 – 0.968	1.201 – 1.342		26.0	12.0
24 (600)	25.770 – 25.829	1.031 – 1.157	1.433 – 1.594		31.0	13.0

\*Not FM certified

