

**AMENDMENTS TO OPSS 701 (NOV 2006) –
CONSTRUCTION SPECIFICATION FOR WATERMAIN INSTALLATION
IN OPEN CUT**

OPSS 701.05.09.01 is superseded by:

Direction to Open Valves

Open Clockwise

In districts Etobicoke/York (former City of York, east of the Humber River), North York, Toronto/East York all valves supplied to these areas of the City will open by operating in a clockwise direction and the operating nut supplied will be painted in red.

Open Counter Clockwise

In districts Etobicoke /York (former City of Etobicoke, west of the Humber River), and Scarborough all valves supplied to these areas of the City will open by operating in a counter clockwise direction and the operating nut shall be painted in black.

Valve Design

Valves shall be designed for a minimum cold water working pressure of 1,035 kPa.

Valve types shall be one of the following:

- a) Valves less than 75 mm shall be brass or bronze gate valves;
- b) Valves greater than or equal to 75 mm, and less than or equal to 300 mm, shall be cast or ductile iron gate valves;
- c) Valves greater than 300 mm up to and including 500 mm shall be gate or butterfly valves; or,
- d) Valves greater than 500 mm shall be butterfly valves.

Fasteners shall be made from material meeting the strength requirements of ASTM A 307 with dimensions according to ASME B18.2.1. Bolts, studs, and nuts shall be cadmium plated according to ASTM B 766 or zinc coated according to ASTM A 153 or ASTM B633. Fasteners for mechanical joints shall be ductile iron according to AWWA C111/A21.11.

Valves shall be supplied with flanged ends conforming to ANSI B16.1 Class 125. Valves shall be capable of a seat differential test pressure equal to the Design Pressure and to a hydrostatic shell test pressure at least 50 % in excess of the design pressure.

Valves for buried installation shall have mechanical flanged ends as required.

Shaft spindles shall have O-ring seals of resilient materials.

Valves shall have non-rising spindles.

Valve operators shall be a waterproof type suitable for continuous submergence duty. Operators shall be grease-packed, enclosed gear type. The work gear and the input shaft shall be stainless steel.

OPSS 701.05.10 is amended with the addition of:

Isolation or secondary valves shall be included in all hydrant installations. The secondary valve shall open in the same direction as the mainline watermain valve. The secondary valve shall be a minimum of one metre away from the hydrant.

The hydrant shall open in the counter-clockwise direction.

OPSS 701.07.20 is superseded by:

Water service connections shall be installed from the watermain to the property line at locations as shown in the contract or as directed by the Commissioner.

Service piping shall be installed by pressure tap connection, double bolt service clamp or saddles. Service connections on plastic watermains shall be installed using double bolt service saddles.

Curb stop valve boxes shall be installed vertically and flush with the final grade elevation at the street line unless otherwise specified.