

## **15001 Construction Materials – Water Mains**

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**15001-1      Water Main Pressure Pipe**

**1.1            Polyvinyl Chloride (PVC) Water Pipe (150mm – 300mm)**

Product Description:

- Polyvinyl Chloride DR18 pressure pipe and fittings
- Bell and Spigot type with factory installed rubber gasket
- Designed for a working Pressure of 1035kPa

Conforming to:

- AWWA C900, CSA137.3

Product Use:

- Water Main construction

Standard Construction Specification Reference:

- 08001-2.1

Approved products: Manufacturer – Model

- Ipex Inc. - Blue Brute
- Royal Group - Royal Seal
- Next Polymers - Aqualoc
- Northern Pipe Products Inc. – Northern Pipe

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**1.2            Polyvinyl Chloride (PVC) Large Diameter Water Pipe (350mm - 1200mm)**

Product Description:

- Project specific

Conforming to:

- AWWA C905, CSA137.3

Product Use:

- Only as approved by City of Saskatoon Engineer on a project to project basis
- Water Main construction

Standard Construction Specification Reference:

- N/A

Approved products: Manufacturer – Model

- Ipex Inc. – Centurion
- Royal Seal CIOD PVC Pipe

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**1.3            Restrained Joint Polyvinyl Chloride (PVC) Water Pipe and Fittings**  
**(150mm – 300mm)**

Product Description:

- Polyvinyl Chloride pressure pipe and fittings with Steel ring-and-pin gasketed joints
- Bell and Spigot type with factory installed rubber gasket
- Designed for a working Pressure of 1035kPa

Conforming to:

- AWWA C900

Product Use:

- As approved by City of Saskatoon Engineer on a project to project basis
- Water Main construction involving Horizontal Directional Drilling and other trenchless applications

Standard Construction Specification Reference:

- N/A

Approved products: Manufacturer – Model

- Ipex Inc. - TerraBrute

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**15001-2      Water Main Pressure Pipe Fittings**

**2.1            Injection Moulded PVC Pipe Fittings (150mm – 1200mm)**

Product Description:

- Polyvinyl Chloride injection molded fittings, DR18, with rubber gasket joints
- Designed for a working Pressure of 1035kPa

Conforming to:

- AWWA C907

Product Use:

- Water Main construction

Standard Construction Specification Reference:

- 08001-5.2

Approved products: Manufacturer – Model

- Ipex Inc. - Blue Brute
- Royal Group - Royal Seal
- **Westlake Pipe & Fittings - Aqua Connect C907**
- Northern Pipe Products Inc. – Northern Pipe

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## **2.2            Fabricated PVC Pressure Pipe Fittings**

### Product Description:

- Polyvinyl Chloride fabricated fittings, DR18, with rubber gasket joints
- Designed for a working Pressure of 1035kPa

### Conforming to:

- AWWA C900 and CSA B137.3

### Product Use:

- Water Main construction
- Fittings larger than 300mm, as approved by engineer on a project to project basis
- Installed with a zinc anode conforming to City of Saskatoon specifications

### Standard Construction Specification Reference:

- 08001-5.3

### Approved products: Manufacturer – Model

- Ipex Inc. – Centurion, Blue Brute
- **Westlake Pipe & Fittings CIOD Fittings**
- Galaxy Plastics – C.I.O.D. PVC C900

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## **2.3            Grey Cast Iron Fittings**

### Product Description:

- Cast Iron fittings, cast from grey cast iron with rubber gasket joints
- Designed for a working Pressure of 1035kPa

### Conforming to:

- AWWA C110

### Product Use:

- Water Main construction
- Installed with a zinc anode conforming to City of Saskatoon specifications

### Standard Construction Specification Reference:

- 08001-5.1

### Approved products: Manufacturer – Model

- Sigma Corporation - Tyton Joint
- Norwood Foundry Limited

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## **15001-3      Water Main Pipe Restraints**

### **3.1            Pipe Restrainers**

#### Product Description:

- Pipe restraints, consist of ductile iron split restraint rings and high strength low allow (HSLA) connecting rods and fasteners

#### Conforming to:

- ASTM A536, ASTM F1674 and AWWA C111

#### Product Use:

- As approved by City of Saskatoon Engineer on a project to project basis
- Shall be galvanized or rust proofed by methods approved by the Engineer
- To restrain pipe and fitting joints

#### Standard Construction Specification Reference:

- 08030-8, Drawing 102-0012-002

#### Approved products: Manufacturer – Model

- Ford Meter Box Company - Uni-flange – 900-C, series 1300-C
- Sigma Corporation - Restraint Systems for Ductile Iron Pipe
- EBAA Iron, Inc. – Push On Pipe Joints

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## **15001-4      Water Main Valves**

### **4.1            Gate Valves**

#### Product Description:

- Gate valve, grey cast or ductile iron body with non rising stem and “O”-ring stem seal
- Designed for a working pressure of 1724 kPa

#### Product Use:

- Water main construction, Horizontal mains.
- Installed with a zinc anode conforming to City of Saskatoon specifications

#### Standard Construction Specification Reference:

- 08001-3.1

### **4.1.1            Double Disc Valves**

#### Conforming to:

- AWWA C500

#### Approved products: Manufacturer – Model

- Mueller Canada – Double Disk Gate Valve
- Clow Canada- 2640
- Jenkins Canada (obsolete soon)

### **4.1.2            Resilient-seated Valves**

#### Conforming to:

- AWWA C509 / C515 , ASTM A126 / A536

#### Approved products: Manufacturer – Model

- Mueller Canada - Series 2360 (150-300mm) slip on type

- Clow Canada – Series F-6000 (150-300mm) Tyton fitting type
- Jenkins Canada (obsolete soon)

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## **4.2            Butterfly Valves**

### **Product Description:**

- Butterfly Valve, grey cast iron body with stainless steel shaft with O-ring stem seals
- Rubber and stainless steel or stainless steel seated

### **Conforming to:**

- AWWA C504 class 150B Valves

### **Product Use:**

- Water main construction, 300mm horizontal mains.
- Installed with a zinc anode conforming to City of Saskatoon specifications

### **Standard Construction Specification Reference:**

- 08001-3.2

### **Approved products: Manufacturer – Model**

- Mueller Canada – Lineseal III
- Clow Canada – 4500 class 150
- Jenkins (obsolete soon)
- Crispin Valves – Kflo Series 500 (3"-20") and Series 47 (24" - 96")

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**15001-5      Water Main Valve Boxes**

**5.1            Valve Boxes – Steel and Cast Iron**

Product Description:

- Valve Boxes sliding type extending from 2440 mm to 3280 mm
- Cast iron cap and boot with the middle section either cast iron or steel

Conforming to:

- AWWA C213

Product Use:

- Water main construction
- Installed with a zinc anode conforming to City of Saskatoon specifications

Standard Construction Specification Reference:

- 08001-3.3.1, Drawing 102-0012-017

Approved products: Manufacturer – Model

- Titan Foundry Ltd.

## **5.2            Valve Boxes – Plastic**

### Product Description:

- Type C PI Valve Box
- Ductile iron cap with polypropylene upper assembly and PVC lower assembly, and ABS boot

### Product Use:

- Water main construction
- Valve repair and maintenance

### Standard Construction Specification Reference:

- 08001-3.3.2, Drawing TBD

### Approved products: Manufacturer – Model

- WD Industrial Group

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### **5.3            Lifter Rings**

Product Description:

- Lifter Rings for Valve Box adjustment
- Cast iron

Conforming to:

- ASTM A48 Class 20

Product Use:

- Water main rehabilitation and roadway rehabilitation

Standard Construction Specification Reference:

- Drawing 102-0012-018

Approved products: Manufacturer – Model

- Titan Foundry Ltd.

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**15001-6      Water Main Hydrants**

**6.1            Hydrants**

Product Description:

- Hydrants, dry barrel with compression type main valve
- 2-65mm nozzles and 114mm pumper nozzle and 150mm inlet elbow (boot) supplied with rubber gasket.
- Designed for a working Pressure of 1035kPa

Conforming to:

- AWWA C502

Product Use:

- Water main construction
- Installed with a zinc anode conforming to City of Saskatoon specifications

Standard Construction Specification Reference:

- 08001-4, 08030-10, Drawing 102-0012-003

Approved products: Manufacturer – Model

- Mueller Canada – Canada Valve
- Clow Canada – McAvity M67
- Clow Canada (Concorde, Daigle) – D67M

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**15001-7      Water Main Pipe Couplings**

**7.1            Pipe Couplings**

Product Description:

- Bolted, non-restraining sleeve-type couplings
- Center sleeve consisting of ductile iron, carbon steel, malleable iron, or Type 304 stainless steel
- Two end rings manufactured from either Ductile Iron, Carbon Steel, malleable Iron, or Type 304 stainless steel
- Two rubber wedge gaskets; SBR (buna S), NBR (buna N) or EPDM grade E
- High strength, low alloy steel (HSLA) or Type 304 stainless steel nuts and bolts.
- Designed for a working Pressure of 1035kPa (150psi)

Conforming to:

- AWWA C219, AWWA C111, NSF/ANSI 61
- Ductile Iron: ASTM A536
- Carbon Steel: ASTM A512 and A53
- Cast Iron: ASTM A97 Grade 32510 or 35018
- Type 304 Stainless steel (coatings not application for stainless steel)
- Rubber: ASTM D2000, NSF/ANSI 61
- Epoxy Coating: AWWA C213

Product Use:

- Water main construction, non-restraining connections between two plain ended pipes
- Use of reducing couplings, as approved by engineer on a project to project basis
- Each bolt to be supplied with zinc anode cap

Standard Construction Specification Reference:

- 08001-6, 08025-8.2
- For required length and number of bolts 08001-6

Approved products: Manufacturer – Model



- Robar Industries Ltd. – 1507, 1507R Epoxy coated, HSLA fasteners with anodes
- Robar Industries Ltd. – 1696-2B Coupling
- Romac Industries Inc. – Macro XP Coupling
- Romac Industries Inc. – XR501 Extended range coupling
- Smith-Blair – 421 Top Bolt® Wide Range Two Bolt Coupling

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**15001-8      Water Main Repair Clamps**

**8.1            Repair Clamps/Abandon Service Sleeves**

Product Description:

- Designed for a working Pressure of 1035kPa (150psi) and
- Stainless Steel Repair Clamps with full wrap around SBR (Buna S) rubber gasket or
- Stainless steel Abandon Service Sleeves with SBR (Buna S) liner, and NBR (Buna N) outlet gasket

Conforming to:

- AWWA C111 Gasket

Product Use:

- To repair service connection cut offs
- Not to be used to repair structural damage or defects of the pipe

Standard Construction Specification Reference:

- 08001-7, 08025-12

Approved products: Manufacturer – Model

- Robar Industries Ltd. – 6636AS Model Abandon Service Sleeve
- Robar Industries Ltd. – 5600 (COS Spec)
- Romac Industries Inc. – SS series

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## **15001-9      Water Main Tapping Sleeves**

### **9.1            Tapping Sleeves**

#### Product Description:

- Tapping Sleeve, Cast iron bolted split sleeve type with flange outlet
- Designed for a working Pressure of 1035kPa

#### Conforming to:

- AWWA C111, NSF 61

#### Product Use:

- Tapping water main services greater than 50mm

#### Standard Construction Specification Reference:

- 08003-1.2.6, 08025-8.2

#### Approved products: Manufacturer – Model

- Mueller Canada - H-615
- Robar Industries Ltd. – 6600 Model
- Smith Blair – 623 Mechanical Joint

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**15001-10     Water Main Tapping Valves**

**10.1            Tapping Valves**

Product Description:

- Tapping valve, iron body, bronze mounted, nonrising stem gate valve
- Designed for a working Pressure of 1035kPa

Conforming to:

- AWWA C500

Product Use:

- Tapping water main services greater than 50mm

Standard Construction Specification Reference:

- 08003-1.2.6

Approved products: Manufacturer – Model

- Mueller Canada – T2300 Series
- Clow Canada – 6000 Series

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**End of Specification 15001**