

<b>Section I: Castings and Aluminum Covers</b>	Effective Date: <u>01-01-20</u> Revision #: <u>2</u>
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<b>I 1 – VALVE BOXES:</b>	Effective Date: <u>01-01-20</u> Revision #: <u>2</u>
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**SPECIFICATION/ MATERIAL:**

Valve boxes shall meet or exceed the performance specifications of:

- Valve boxes shall be screw type.
- Lid shall be marked “WATER” or “SANITARY SEWER” (to match service type application).
- Produced for gray cast iron.
- ASTM Standards A48, Class 30– 35.
- Shall be designed, constructed and capable of withstanding a minimum H-20 type loading.
- Shall be cleaned according to good foundry practice, chipped and ground as needed to remove fins and rough places on castings.
- Shall have a paint or seal-coated finish.
- The lid shall fit flush in the top of the box without forcing and shall not rock.
- Shall have a non-tip lid with a minimum skirt of one and one-half (1-1/2”), for a total lid height of three and one-half (3-1/2”) inches.
- Shall have a five and one quarter (5 1/4”) inch shaft.

**REQUIREMENTS:**


- For federally funded or DOT projects all castings shall be poured at a foundry located in the U.S.A. or have ISO 9001 or later certification.
- Affidavit of compliance.
- All castings shall be true and free of holes.
- All castings shall have manufacturers cast mark and part number clearly visible on each component.
- Fixed riser extensions shall be available for the box top section to be considered for approval.
- Riser sections shall be continuously compatible to achieve any desired height in one (1”) and two (2”) inch increments plus or minus a half (1/2”) inch.
- Locking covers shall be available.



**MANUFACTURER:**

- STAR PIPE PRODUCTS
- TYLER PIPE/ UNION FOUNDRY CO

**RESTRICTIONS:**

<b>I 2 – SERVICE CLEAN-OUT BOX &amp; LID:</b>		Effective Date: <u>01-01-20</u> Revision #: <u>2</u>
<p><b><u>SPECIFICATION/ MATERIAL:</u></b> Service clean-out box and lid shall meet or exceed the performance specifications of:</p> <ul style="list-style-type: none"> <li>• Box and lid shall be gray cast iron or ductile iron.</li> <li>• ASTM Standards A48 Class 30B (gray cast iron).</li> <li>• ASTM Standards A536 Grade 65-45-12 (ductile).</li> <li>• Shall be designed, constructed and capable of withstanding a minimum H-20 type loading.</li> <li>• Shall be cleaned according to good foundry practice chipped and ground as needed to remove fins and rough places on castings.</li> <li>• Bearing surfaces shall be machined to ensure a proper fit and prevent rattling and fit flush without forcing.</li> <li>• Lid shall be labeled with “CO” for clean-out.</li> <li>• A nominal 6” diameter by 12” minimum cast iron box and cover.</li> </ul> <p><b><u>REQUIREMENTS:</u></b></p> <ul style="list-style-type: none"> <li>• For federally funded or DOT projects, all castings shall be poured at a foundry located in the U.S.A. or have ISO 9001 or later certification.</li> <li>• Affidavit of compliance.</li> <li>• All castings shall be true and free of holes.</li> <li>• All castings shall have manufacturers cast mark and part number clearly visible on each component.</li> </ul>		
<p><b><u>RESTRICTIONS:</u></b></p>	<p><b><u>MANUFACTURER:</u></b></p> <ul style="list-style-type: none"> <li>• U.S. FOUNDRY &amp; MFG. CORP.</li> <li>• STAR PIPE PRODUCTS</li> <li>• CAPITOL FOUNDRY OF VIRGINIA</li> <li>• GENERAL FOUNDRIES, INC.</li> </ul>	

<b>I 3 – MANHOLE CASTINGS/ STANDARD RING &amp; COVER:</b>	Effective Date: <u>01-01-20</u> Revision #: <u>2</u>
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**SPECIFICATION/ MATERIAL:**

Manhole castings, standard ring and cover, shall meet or exceed the performance specifications of:

- Ring and covers shall be gray cast iron or ductile iron.
- ASTM Standards A48 Class 35B (gray cast iron).
- ASTM Standards A536 Grade 65-45-12 (ductile).
- Shall be designed, constructed and capable of withstanding a minimum H-20 type loading.
- Shall be cleaned according to good foundry practice, chipped and ground as needed to remove fins and rough places on castings.
- Bearing surfaces shall be machined to ensure a proper fit and prevent rattling and fit flush without forcing.
- Cover shall be labeled with "SANITARY SEWER".

**DIMENSIONS:**

- Clear opening – 24" for standard & water tight covers
- Frame height – 7-1/2" located in pavement

**INCLUDE:**

- Ring and covers shall be palletized and banded.
- All covers shall have lifting bars in lieu of pick holes.
- Side sealing gaskets for watertight frame & cover locations.

**REQUIREMENTS:**

- For federally funded or DOT projects all castings shall be poured at a foundry located in the U.S.A. or have ISO 9001 or later certification.
- Affidavit of compliance.
- All castings shall be true and free of holes.
- All castings shall have manufacturers cast mark and part number clearly visible on each component.
- Watertight and bolted covers shall be available.



**MANUFACTURER:**

- CAPITOL FOUNDRY OF VIRGINIA
- GENERAL FOUNDRIES, INC.
- U.S. FOUNDRY & MFG. CORP.
- STAR PIPE PRODUCTS

**RESTRICTIONS:**

- Frame and covers on manholes permanently located in non-traffic areas and elevated 2' or more above finished grade may be considered for non-H20 type loading requirements.

**I 4 – ACCESS COVERS/ ALUMINUM:**

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**SPECIFICATION/ MATERIAL:**

Aluminum access covers shall meet or exceed the performance specifications of:

- Shall be designed, constructed and capable of withstanding a minimum 300-pound per square foot live load.
- If subject to traffic, shall be designed and capable of withstanding a minimum AASHTO HS-20 load.
- Shall have checkered or diamond pattern finish on cover surface.
- Shall have vandal-proof recessed stainless steel hinges.
- Hasp will be fabricated round bar stock mounted vertically and drilled to accept a padlock.
- A fall prevention system shall be incorporated into the access frame.
- Doors over 50 lbs. in pull-weight shall be torsion bar loaded.
- All covers shall have a locking safety handle to hold them in the open position.
- Shall be cast into top slab of wet well or valve vault.
- Shall be sized to provide a clear opening to allow for service and removal of equipment (including pumps).
- For federally funded or DOT projects, access covers must have ISO 9001 or later certification, or manufactured in a factory located in the U.S.A.
- Affidavit of compliance to this specification shall be available upon request.



**FALL PREVENTION SYSTEM:**

**Grate:**

- Shall be FRP or aluminum with 316 stainless steel components.
- Shall withstand a 300 pound per square foot load.
- Shall lock in place and rotate open 90 degrees.
- Shall be removable.

**MANUFACTURER:**

- THE BILCO COMPANY
- HALLIDAY PRODUCTS
- U.S.F. FABRICATION INC.
- OPEN

**RESTRICTIONS:**