<table>
<thead>
<tr>
<th>Section F: Service Saddles and Tapping Devices</th>
<th>Effective Date: 01-01-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision #: 2</td>
<td></td>
</tr>
</tbody>
</table>

F 1  Service Saddles/ Hinged Type for 2” PVC
F 1.1  Service Saddles/ Brass Alloy/ Stainless Steel Straps for Cast, Ductile & PVC Pipe
F 1.2  Service Saddles/ Ductile Iron/ Stainless Steel Straps for Cast, Ductile & PVC Pipe
F 2  Tap Sleeves 4” Thru 24”, Flange Connection (Fabricated Stainless Steel)
F 2.1  Tap Sleeves 4” Thru 12”, Mechanical Joint Connection (Fabricated Stainless Steel)
F 3  Sewer Service Saddles/ Ductile Iron/ Stainless Steel Straps/Non-Pressure
**F 1 – SERVICE SADDLE, BRASS/ ALLOY/ HINGED TYPE/ 2” PVC:**

<table>
<thead>
<tr>
<th>SPECIFICATION:</th>
<th>Effective Date: 01-01-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brass alloy service saddles shall meet or exceed the performance specifications of:</td>
<td>Revision #: 2</td>
</tr>
<tr>
<td>• ASTM Standards B62 (85-5-5-5) brass.</td>
<td></td>
</tr>
<tr>
<td>• ASTM Standards D2000 gaskets seals.</td>
<td></td>
</tr>
<tr>
<td>• Strap shall be a single hinged strap.</td>
<td></td>
</tr>
<tr>
<td>• Strap shall have a curvature accurately formed to meet the diameter of the pipe.</td>
<td></td>
</tr>
<tr>
<td>• Gasket shall be securely glued or imbedded in the body of the clamp to ensure a positive seal against the pipe.</td>
<td></td>
</tr>
<tr>
<td>• NSF Standards 61.</td>
<td></td>
</tr>
</tbody>
</table>

**MATERIAL:**

<table>
<thead>
<tr>
<th>Body:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Brass per ASTM Standards B62</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Straps:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Brass per ASTM Standards B62</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bolts &amp; Nuts:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Brass per ASTM Standards B62</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gasket:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• EPDM (ethylene propylene).</td>
<td></td>
</tr>
<tr>
<td>• Nitrile Buna-N (Acrylonitrile butadiene- (NBR)).</td>
<td></td>
</tr>
<tr>
<td>• Viton; Fluorel (FKM)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coating:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Brass: None</td>
<td></td>
</tr>
</tbody>
</table>

**DESIGN:**

| For 2” IPS PVC pipe. | |

**OUTLETS:**

| 1” shall be female AWWA CC taper female threads. | |
| 2” shall be female iron pipe threads. | |

**MANUFACTURER:**

| A.Y. MCDONALD MODEL- 3891 | |
| FORD MODEL- S70 | |
| MUELLER MODEL- S13420 | |

**RESTRICTIONS:**

| Hinged saddles are not acceptable | |
F 1.1 – SERVICE SADDLES / BRASS ALLOY / STAINLESS STEEL STRAPS FOR CAST IRON, DUCTILE IRON & PVC PIPE:

**SPECIFICATION:**
- Brass alloy service saddles shall meet or exceed the performance specifications of:
  - ASTM Standards B62 (85-5-5-5) brass.
  - ASTM Standards D2000 gaskets seals.
  - Single or multiple stainless steel straps three-inches wide or more. Single strap preferred.
  - Welds shall be fully passivated for corrosion resistance.
  - Straps shall have a curvature accurately formed to lubricant treated nuts to prevent galling.
  - Gasket shall be securely glued or imbedded in the body of the clamp to ensure a positive seal against the pipe.
  - NSF Standards 61.

**MATERIAL:**
**Body:**
- Brass per ASTM Standards B62

**Straps:**
- Stainless steel, 18-8 type 304

**Nuts, Bolts & Washers:**
- Stainless steel, 18-8 type 316

**Gasket:**
- EPDM (ethylene propylene)
- Nitrile Buna-N (Acrylonitrile butadiene (NBR)).
- Viton; Fluorel (FKM)

**Coating:**
- Brass: None

**DESIGN:**
- For cast iron, ductile iron and PVC pipe.

**OUTLETS:**
- 1” shall be female AWWA CC taper female threads.
- 2” shall be female iron pipe threads.

**MANUFACTURER:**
- A.Y. MCDONALD– 3845, 3846 & 3855, 3856 SERIES
- FORD– 202BS STYLE
- MUELLER– BR2S SERIES
- POWER SEAL–3409 SERIES
- ROMAC– 202BS SERIES
- SMITH BLAIR– 325, 393 SERIES

**RESTRICTIONS:**
- Shall be used for connections to 12” mains or smaller.
- Hinged saddles are not acceptable
## F 1.2 – SERVICE SADDLES/ DUCTILE IRON/ STAINLESS STEEL STRAPS FOR CAST IRON, DUCTILE IRON & PVC PIPE:

**SPECIFICATION:**

Ductile iron service saddles shall meet or exceed the performance specifications of:

- ASTM Standards A536 ductile iron.
- ASTM Standards D2000 gaskets seals.
- Single or multiple stainless steel straps three-inches wide or more. Single strap preferred.
- Welds shall be fully passivated for corrosion resistance.
- Straps shall have a curvature accurately formed to meet the diameter of the pipe.
- Fusion nylon or fusion epoxy coating, minimum 12 mils thick.
- Lubricant treated nuts to prevent galling.
- Gasket shall be securely glued or imbedded in the body of the clamp to ensure a positive seal against the pipe.
- NSF Standards 61.

**MATERIAL:**

**Body:**
- Ductile iron per ASTM Standards A536

**Straps:**
- Stainless steel, 18-8 type 304

**Nuts, Bolts & Washers:**
- Stainless steel, 18-8 type 316

**Gasket:**
- EPDM (ethylene propylene).
- Nitrile Buna-N (Acrylonitrile butadiene (NBR)).
- Viton; Fluorel (FKM)

**Coating:**
- Ductile iron: fusion epoxy or nylon.

**DESIGN:**
- For ductile iron, cast iron, and PVC pipe.

**OUTLETS:**

- 1” shall be female AWWA CC taper female threads.
- 2” shall be female iron pipe threads.

**MANUFACTURER:**

- CASCADE– CNS2 STYLE
- DRESSER–291 SERIES per spec.
- FORD– FC202 STYLE
- JCM–406 SERIES
- MUELLER– DR2S SERIES
- POWER SEAL–3417DI, 3417SW
- ROMAC– 202NS SERIES
- SMITH BLAIR– 397, 317 SERIES

**RESTRICTIONS:**

- Shall be used for connections to 12” mains or smaller.
- Hinged saddles are not acceptable.
**SPECIFICATION:**
Service saddles shall meet or exceed the performance specifications of:

- ASTM Standards D2000 gaskets seals.
- AWWA C115 and C223
- Outlet branch O-ring seal type gasket.
- ASTM Standards A240, 18-8 type 304 stainless steel.
- Welds shall be fully passivated for corrosion resistance.
- Body shall have a curvature accurately formed to meet the diameter of the pipe.
- Lubricant treated nuts to prevent galling.
- Gasket shall be securely glued or imbedded in the body of the clamp to ensure a positive seal against the pipe.
- NSF Standards 61.

**MATERIAL:**
- **Body:** Stainless steel, 18-8 type 304.
- **Flange:** Stainless steel, 18-8 type 304.
- **Nuts, Bolts & Washers:** Stainless steel, type 316.
- **Gasket:**
  - EPDM (ethylene propylene).
  - Nitrile Buna-N (Acrylonitrile butadiene (NBR)).
  - Viton; Fluorel (FKM)

**DESIGN:**
- For ductile iron, cast iron and PVC pipe.

**CONNECTION:**
- Flange shall conform to AWWA C228 Class SD and recessed for tapping valve (MSS-SP60).

**ADDITIONAL REQUIREMENTS:**
- This product is for connection of branch lines to existing in-service pipelines.

**MANUFACTURER:**
- FORD METER BOX STYLE FTSS
- JCM 432 SERIES
- POWER SEAL 3490AS SERIES
- ROMAC SST III SERIES

**RESTRICTIONS:**
SPECIFICATION:
Service saddles shall meet or exceed the performance specifications of:

- AWWA C110 mechanical joint dimensions.
- ASTM Standards D2000 gaskets seals.
- Outlet branch O-ring seal type gasket.
- 18-8 type 304 stainless steel.
- Welds shall be fully passivated for corrosion resistance.
- Body shall have a curvature accurately formed to meet the diameter of the pipe.
- Lubricant treated nuts to prevent galling.
- Gasket shall be securely glued or imbedded in the body of the clamp to ensure a positive seal against the pipe.
- NSF Standards 61.

MATERIAL:
Body:
- Stainless steel, 18-8 type 304.

Flange:
- Stainless steel, 18-8 type 304.

Nuts, Bolts & Washers:
- Stainless steel, type 316

Gasket:
- EPDM (ethylene propylene).
- Nitrile Buna-N (Acrylonitrile butadiene (NBR)).
- Viton; Fluorel (FKM)

DESIGN:
- For ductile iron, cast iron and PVC pipe.

CONNECTION:
- Mechanical Joint (MJ).

ADDITIONAL REQUIREMENTS:
- This product is for connection of branch lines to existing in-service pipelines.

MANUFACTURER:
- FORD METER BOX STYLE FTSS MJ
- JCM 432 SERIES MJ
- POWER SEAL 3490AS SERIES MJ
- ROMAC SST III SERIES MJ

RESTRICTIONS:
### F 3 – SEWER SERVICE SADDLES/ DUCTILE IRON/ STAINLESS STEEL STRAPS/ NON-PRESSURE:

<table>
<thead>
<tr>
<th>SPECIFICATION:</th>
<th>DESIGN:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ductile iron service saddles shall meet or exceed the performance specifications of:</td>
<td>For ductile iron, cast iron, and poly vinyl chloride (PVC) pipe.</td>
</tr>
<tr>
<td>• ASTM Standards A536 ductile iron.</td>
<td></td>
</tr>
<tr>
<td>• ASTM Standards D2000 gaskets seals.</td>
<td></td>
</tr>
<tr>
<td>• Type 304 stainless steel.</td>
<td></td>
</tr>
<tr>
<td>• Strap shall be a single strap three-inches or more wide.</td>
<td></td>
</tr>
<tr>
<td>• Welds shall be fully passivated for corrosion resistance.</td>
<td></td>
</tr>
<tr>
<td>• Straps shall have sufficient length to fit a wide range of pipe diameters.</td>
<td></td>
</tr>
<tr>
<td>• Fusion nylon or fusion epoxy coating, minimum 12 mils thick or shop coat paint finish.</td>
<td></td>
</tr>
<tr>
<td>• Lubricant treated nuts to prevent galling.</td>
<td></td>
</tr>
<tr>
<td>• Gasket shall be securely glued or imbedded in the body of the clamp or inserted in the body of the clamp to ensure a positive seal against the pipe.</td>
<td></td>
</tr>
</tbody>
</table>

### MATERIAL:

<table>
<thead>
<tr>
<th>Body:</th>
<th>OUTLETS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ductile iron per ASTM Standards A536 Grade 65-45-12 or Cast Iron per ASTM A126.</td>
<td>4” and 6”</td>
</tr>
<tr>
<td>Stainless steel, ASTM A 240 type 304</td>
<td></td>
</tr>
<tr>
<td>Stainless steel, ASTM A193, A194, A240 type 304</td>
<td></td>
</tr>
</tbody>
</table>

### Bolts, Nuts & Washers:

| Stainless steel, ASTM A193, A194, A240 type 304 |

### Gasket:

| SBR (Styrene Butadiene). |
| Polyisoprene |
| EPDM (ethylene propylene). |
| Nitrile Buna-N (Acrylonitrile butadiene (NBR)). |
| Viton; Fluorel (FKM). |

### Coating:

| Ductile iron= fusion epoxy, nylon or shop coat paint finish. |

### MANUFACTURER:

- ROMAC– STYLE “CB” SEWER SADDLE
- GENECO SEALTITE SEWER PIPE SADDLE
- FORD METER BOX FSS SEWER SADDLE

### RESTRICTIONS:

- Hinged saddles are not acceptable.