Bolt hole and boss. Gauge shall be used to check PCD and tapped hole position.

**PLAN**

3 chamfer typical

35 RISER
MASS: 27.5kg

60 RISER
MASS: 32kg

75 RISER
MASS: 38kg

90 RISER
MASS: 44kg

**RISER DETAILS**
(Refer to 35 riser for typical dimensions for all risers)

**NOTES:**
1. All edges to be square.
2. Casting to be free of burrs and pits.
3. Material
   - Ductile cast iron
   - Tensile strength: 650 - 800 MPa (AS 1831)
   - Hardness: 145 - 185 VHN
   - Design load = 210 kN (AS 3996)
   - Mass = varies
4. Tolerances
   - Cast size ± 1.00mm
   - Angle profile ± 0.25
   - Machined size ± 0.125mm
   - Overall diameter of cover: +0mm - 0.25mm
   - DPT of coating 50 μm
5. Machine surface symbol:
6. All machined surfaces shall have a coating approved as fit for the purpose of providing a rust proof, non stick and gas/water proof joint.
7. Four (4) M8 Coarse Thread Stainless Steel Bolts must be supplied and used to fix riser to frame, where cover is required to be bolted down, min two extra length bolts must be used to secure cover and raiser to frame, with two remaining bolts securing riser to frame. Refer TABLE 1 for bolt lengths.
8. Refer Std Dwg DS-015 for manhole frame details.
9. Refer Std Dwg DS-019, DS-020 and DS-021 for manhole cover details.
10. All dimensions are in millimetres unless shown otherwise.

**TABLE 1**

<table>
<thead>
<tr>
<th>RISER HEIGHT</th>
<th>BOLT LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FOR RISER</td>
</tr>
<tr>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>60</td>
<td>90</td>
</tr>
<tr>
<td>75</td>
<td>110</td>
</tr>
<tr>
<td>90</td>
<td>115</td>
</tr>
</tbody>
</table>

These drawings have been developed in consultation between the participating Councils. BEFORE USE, the user shall confirm that the drawing has been adopted by the appropriate Council.