

**END ELEVATION**

Riser will be required for roadway cover

**LIFTING KEYHOLE DETAIL**

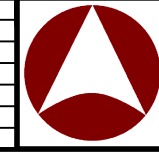
**BOLTING BOSS DETAIL**

**NOTES:**

- All edges to be square.
- Casting to be free of burrs and pits.
- Material**  
Ductile cast iron  
Tensile Strength: 600-3 (AS 1831)  
Hardness: 145-185 (HB)  
Design Load = 210kN (AS 3996)  
Mass = 49kg
- Tolerances**  
Cast Size ± 1.00mm  
Angle profile ± 0.25°  
Machined Size ± 0.125mm  
Overall diameter of cover +0mm-0.25mm  
DFT of coating 50 µm
- Machine surface symbol: 3.2/
- All machine surfaces shall have a coating approved as fit for purpose of providing a rust proof, non-stick and gas/water proof joint.
- Lids to be bolted down if directed by Designer. min two extra length bolts must be used to secure Cover and Riser to frame. Refer to D-018 for Riser detail and Bolt lengths.
- Refer Std Dwg DS-015 for manhole frame details.
- Refer Std Dwg DS-018 for manhole riser details.
- Refer Std Dwg DS-020 and DS-021 for alternate cover details.
- All dimensions are in millimetres unless shown otherwise.

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.

C	06/14	Review
B	03/14	Amended Drawing Number
A	10/12	ORIGINAL ISSUE
Rv.	DATE	REVISIONS



**INSTITUTE OF PUBLIC WORKS ENGINEERING AUSTRALASIA**  
STANDARD DRAWINGS

**MANHOLE COVER (ROADWAY)**  
1050 TO 2100 DIAMETER

**DS-019**

C
B
A
Rv.