Guidance Note 5 – OSMA UltraRib Inspection Chambers 500/600mm dia.

Typical installation of 500/600mm dia. Inspection Chamber

NOTE: The following is a typical summary of the installation procedures required to install Osma 500/600mm dia Inspection Chambers. For more specific advice see relevant Product and Installation Guide.

Excavation
• Take precautions against trench collapse: support trench sides deeper than 1.2m.

Preparation
• Prepare and compact 100mm regulating bed of granular material in trench bottom.

Positioning/connection
• Position Base on regulating bed. Check outlet is facing in the correct direction: i.e. with side inlets swept to follow water flow.
• Ensure all inlets/outlet are free from dirt or grit.
• Use standard jointing sequence to connect 150mm, 225mm or 300mm UltraRib pipes to inlets/outlet. For connection of TwinWall pipes in these sizes, use Adaptors 6TW145, 9TW145 or 12TW145

NOTE: The main through channel MUST be used. Bends up to 45° may be used on any inlet or outlet.

Backfill
• Using same material as bedding, backfill around Base in 150mm layers up to underside of shaft socket. Ensure inside of Base is free of debris.

Preparing shaft
• Cut corrugated shaft to approx. Invert depth of Chamber. RECOMMENDATION: leave extra 300mm depth to allow for possible final site changes.

Backfill trench
• Before starting backfill, cover top of shaft to prevent ingress of dirt or grit.

Trafficked application (e.g. roadway)
• Follow Highway Specification: use Type 1 or similar backfill, and compact.

Non-trafficked application (e.g. garden area)
• Use “as-dug” material (excluding stones >40mm dia., frozen or vegetable matter) in 300mm layers. Tamp mechanically around full circumference of Base so that current conditions re ground and water table, and anticipated future loading, can be supported. RECOMMENDED SPD LEVELS: – Green areas 90% – Paved areas/limited traffic load 95% – Roads/heavy traffic loads 98%

Figure 21. Typical installation: 600mm dia. Inspection Chamber (Type 3)
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**Typical installation of 500/600mm dia. Inspection Chamber - cont.**

- Avoid knocking shaft during backfilling – and keep free of debris.
- Backfill to formation level.

**Trim shaft/fit restriction access cap**

Trim shaft to required height using fine-toothed saw.

*NOTE:* If finished ground level is not yet known, leave shaft proud of surface and keep open end covered until final completion.

- When shaft trimmed to final height, locate sealing ring between 2nd and 3rd ribs from shaft top. Ensure ring is seated correctly/not twisted.
- Lubricate inside of 350mm restrictor cap, position over top of shaft, and push fully home.

**Typical installation guidance: B125 and D400 cover and frame**

For B125 – Paved areas with limited traffic load and for D400 – Roads with heavy traffic loads

- Trim shaft section at last stage of construction. Ensure unit is at correct height.
- Protect shaft from traffic loading by shuttering its external ribs.
- Lay 150mm thick slab of pre-cast or in situ concrete around top of shaft chamber with minimum opening for 500mm dia. Chamber of 600mm x 600mm or 600mm dia, or minimum opening for 600mm dia. Chamber of 750mm x 750mm or 750mm dia. – to ensure that any loads are distributed away from the shaft.
- On top of slab, construct Class B engineering brickwork OR concrete blocks OR pre-cast concrete seating rings up to required height.
- According to required loading application, position Ductile Iron B125 or D400 Cover and Frame on top of slab. (See Figure 22).

![Figure 22. Installation detail for B125 loading: paved areas with limited traffic load; and for D400 loading: roads with heavy traffic loads](image-url)