



uPVC
INSPECTION CHAMBER

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Inspection chambers and manholes are essential elements in every sewer system, installed at the points of change in flow direction and at the points where different sewer streams converge.

The uPVC inspection chambers are the modern economical alternative to the traditional manholes constructed from concrete or bricks.

Cosmoplast prefabricated inspection chambers are intended for use in drainage or sewerage systems, having a manhole access and a base with channels in the base extending between the inlet and the outlet openings.

Inspection chambers are necessary in every drainage installation for inspection, testing and removal of solids from the drainage system. Cosmoplast Inspection Chamber provides access to the drainage system allowing rodding in both directions.

Advantages of Cosmoplast uPVC Inspection Chambers:

- High resistance to corrosion and abrasion.
- Easy handling and storage due to its light weight.
- Quick and easy to install and maintain.
- Watertight body.
- Equipped with heavy duty lid and cover.
- Equipped with ring seal (push fit) sockets at the inlets and outlet.
- Strong Injection moulded uPVC body reinforced with strengthening ribs which increase the resistance against impact damage.
- Adjustable chamber height by using the chamber risers.
- The Half Channel Invert design ensures better flow.
- Smooth internal surface that prevents sewage from settling on the chamber surface.
- Cost effective compared to the traditional manholes.



ISO 9001 FM 75767

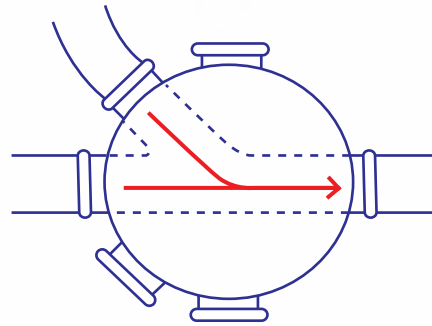
Chamber Design

Cosmoplast inspection chamber has a moulded base and integral side walls. To form the full height of the inspection chamber, further side wall sections known as chamber risers are fitted one on the other on the base section.

The inspection chamber has five 110mm inlets and one 110mm outlet. All connections are ring seal (push fit) socket connections.

Cosmoplast uPVC inspection chamber is supplied with blanking plugs for all side sockets, these plugs are used to close the unused outlets.

It is recommended that the peak flow in the drain is always discharged through the main channel of the chamber to avoid the build-up of solids. Chambers should be rotated accordingly on site to accommodate this purpose.



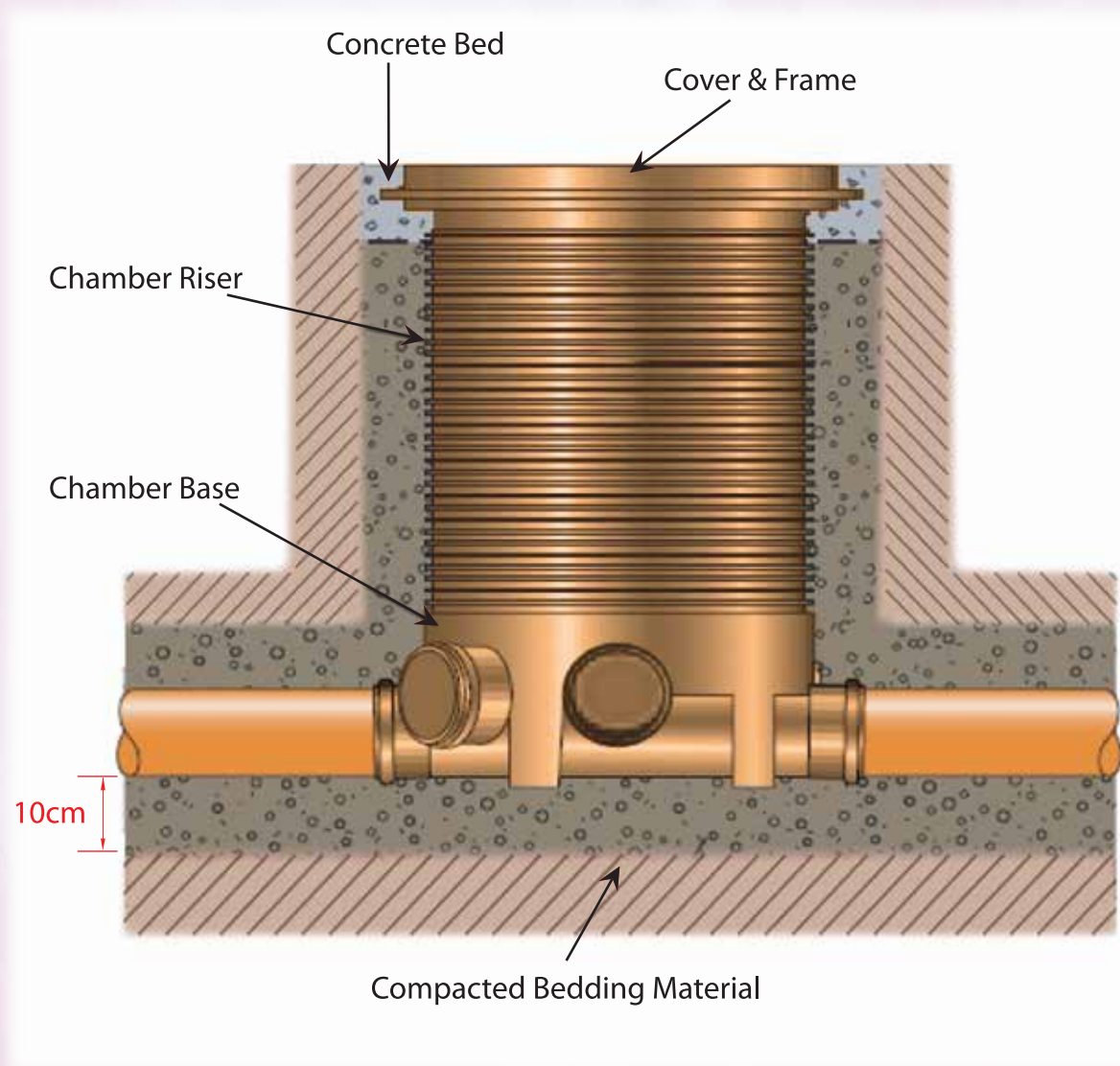
Depth Adjustment:

The chamber depth can easily be accommodated by installing the chamber risers one over the other to achieve the desired height. The last chamber riser can be trimmed to suit the finished ground level.



Base Bedding and Backfilling

Chambers should be installed on a minimum 10cm bed of evenly compacted bedding material to ensure that the chamber is fully supported.

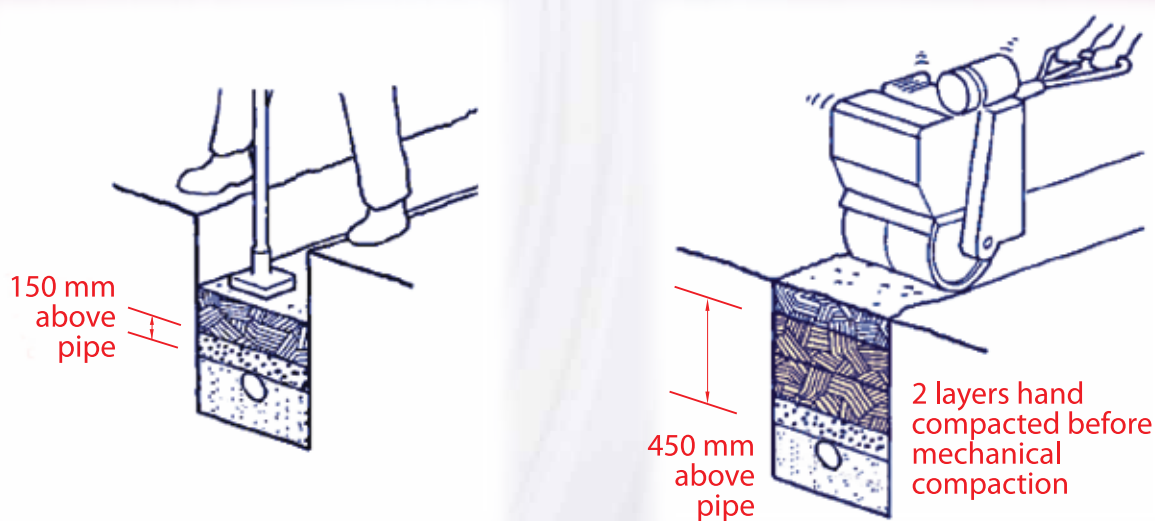


During the installation stage and prior to backfilling, special care should be given to maintain vertical alignment of the chamber during the backfilling operation.

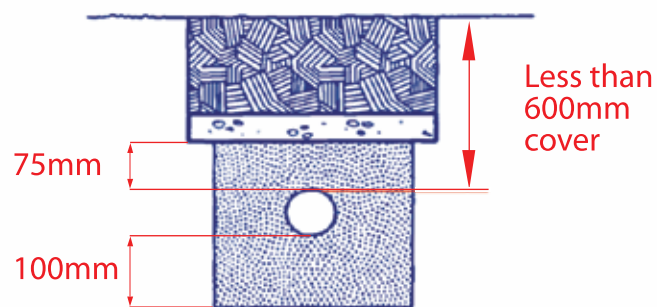
Side fill material should be extended to just below ground level and the cover and frame should be set in a concrete bed.

Recommendations:

- Place backfill as soon as the pipes have been bedded, jointed and inspected.
- Use granular material or selected backfill from the trench excavation free from
 1. Stones larger than 40mm.
 2. Clay lumps larger than 100mm
 3. Timber
 4. Frozen material
- Compact backfill in layers not deeper than 300mm
- Avoid mechanical compaction until fill is at least 450mm above pipe work



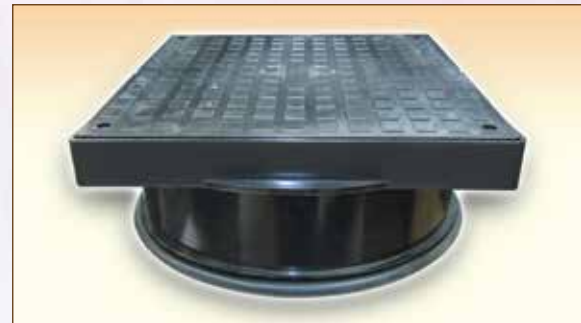
- Provide protection for pipes under roads and parking areas.



Chamber Covers:

Cosmoplast heavy duty uPVC square lid and frame is used with the inspection chamber installed in pedestrian access areas.

Cast iron lids and covers should be used with the uPVC inspection chamber when installed in areas accessible to vehicular traffic.



Water Tightness:

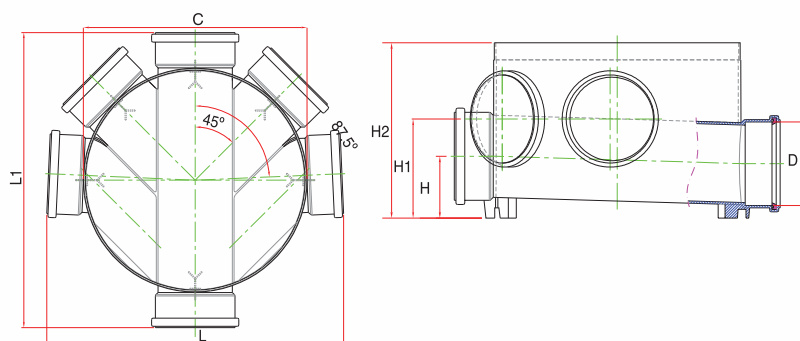
Inspection chambers are designed to ensure watertight body capable of withstanding water testing. Chambers may be filled to ground level (1.2 meters max) separately or as part of a complete drainage installation.

The chamber raisers are designed to provide instant watertight joints. They are reinforced with strengthening ribs which increase the resistance against impact damage.

The chamber has a push fit jointing system between the top frame and chamber riser using ring seal fitted around the top frame to ensure water tightness.

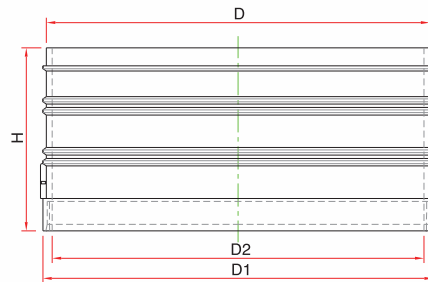
Components:

Inspection Chamber Base

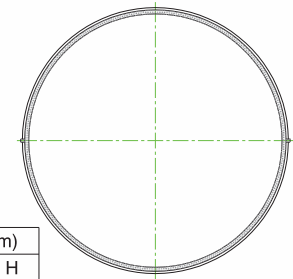


DIMENSIONS (mm)						
D	C	L	L1	H	H1	H2
110	330	450	440	80	130	237

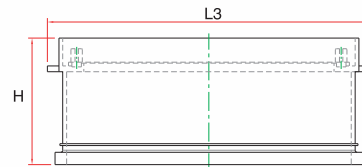
Inspection Chamber Riser



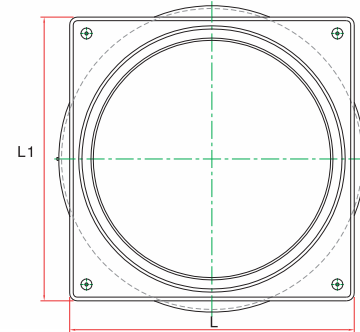
DIMENSIONS (mm)			
D	D1	D2	H
328	335	320	156



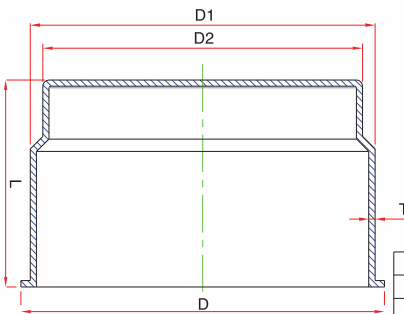
Inspection Chamber Cover



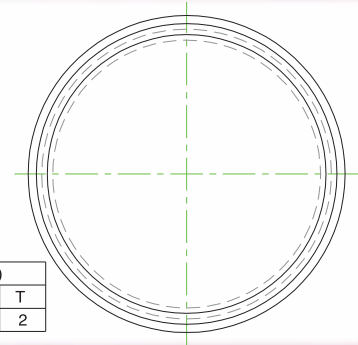
DIMENSIONS (mm)			
L	L1	L3	H
312	312	338	130



Inspection Chamber Blanking Plug



DIMENSIONS (mm)				
D	D1	D2	L	T
116	110	102	66	2



Inspection Chamber Rubber Seal



Pipeline Systems



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