

INSTALLATION OF MANHOLE COVERS DN 400



The load-bearing capacity of the cover is only guaranteed when it is installed correctly. Traffic loads must be transferred through the frame and the load-bearing substructure and must not be transmitted directly to the chamber body.

According to EN 124 and ISO 15398 our chamber covers are allowed for the following use cases:

A 15 (1,5t)	Primarily for areas where only pedestrians and cyclists are anticipated.
A 35 (3,5t)	Primarily for areas where only pedestrians and light vehicles are anticipated, like private driveways.
B 125 (12,5t)	Appropriate for driveways, footpaths, grass verges, and car parks where there's light vehicular traffic.
D 400 (40t)	Used in areas with heavy traffic, such as carriageways, hard shoulders, and parking areas for all types of vehicles.



The load class according to the norm refers to the test load used. The actual load-bearing capability during continuous use stands at only 25–30% of the test load.

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1 MANHOLE COVER A 15

1.1 CHECK ACTUAL INSTALLATION HEIGHT

Before installation, the actual installation height on site must be checked. This includes verifying the existing height of the chamber body, the adjustment range of the telescopic cover frame, and the planned finished surface level.

The telescopic cover frame must be planned so that it can be adjusted to match the final surface elevation. The required thicknesses for the blinding layer, bedding, backfill, and surface construction must be taken into account.

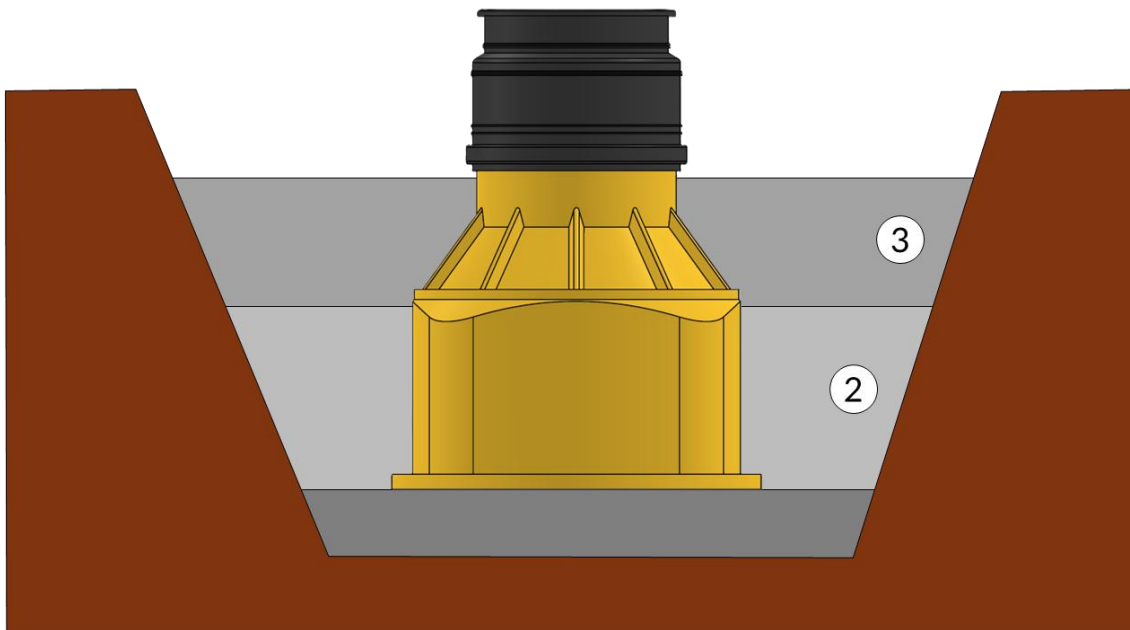
The excavation must be dug to the required depth. A stable, level blinding layer (1) must then be constructed at the required elevation.



1.2 PREPARE BEDDING AND BACKFILL

The bedding and/or side backfill (2), as well as the backfill above the pipes or chamber (3), must be installed in layers and carefully compacted. Care must be taken to ensure uniform, load-bearing, and settlement-free construction.

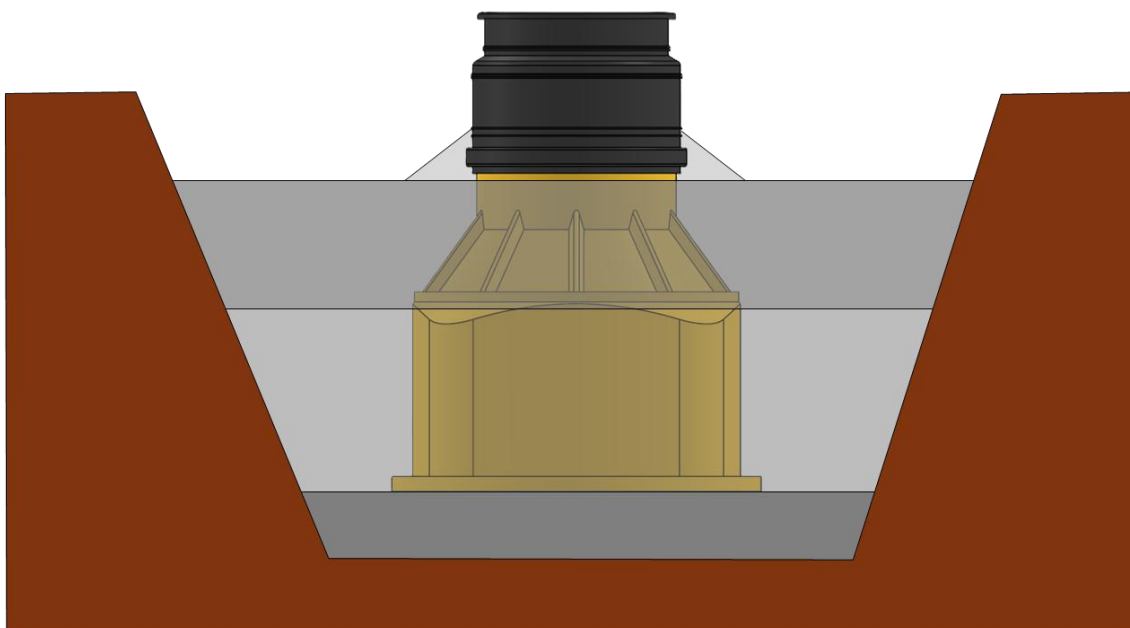
Further details can be found in the installation and operating instructions for HIRO distribution chambers.



1.3 SECURE TELESCOPIC INSERT

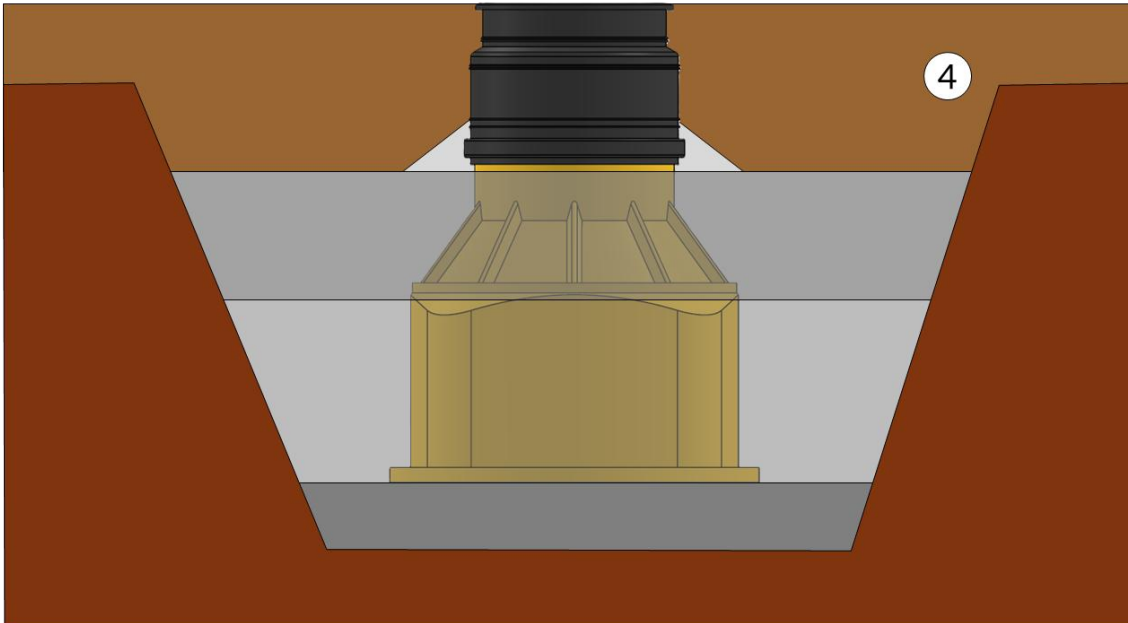
The telescopic insert must be secured at the adjusted height against settlement or uplift. This can be achieved either by fixing it with a suitable mortar or by using graded aggregate placed and compacted in layers.

It must be ensured that the adjusted installation height is maintained until completion of the surface construction.



1.4 COMPLETE SURFACE CONSTRUCTION

The remaining surface construction (4) must be completed in accordance with the planned surface finish. It must be ensured that the cover frame is aligned to the correct elevation and finishes flush with the final surface.

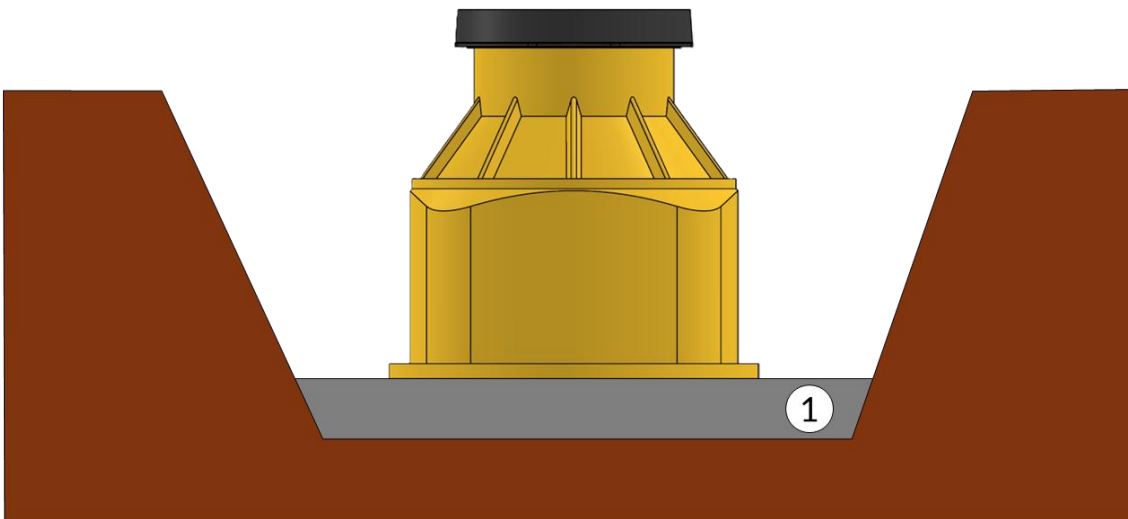


2 MANHOLE COVER D 400

2.1 CHECK ACTUAL INSTALLATION HEIGHT

Before installation, the actual installation height on site must be checked. This includes verifying the existing height of the chamber body, the height of the frame and cover assembly, and the planned finished surface level. The required height for the leveling layer, bearing support, and grouting must also be taken into account.

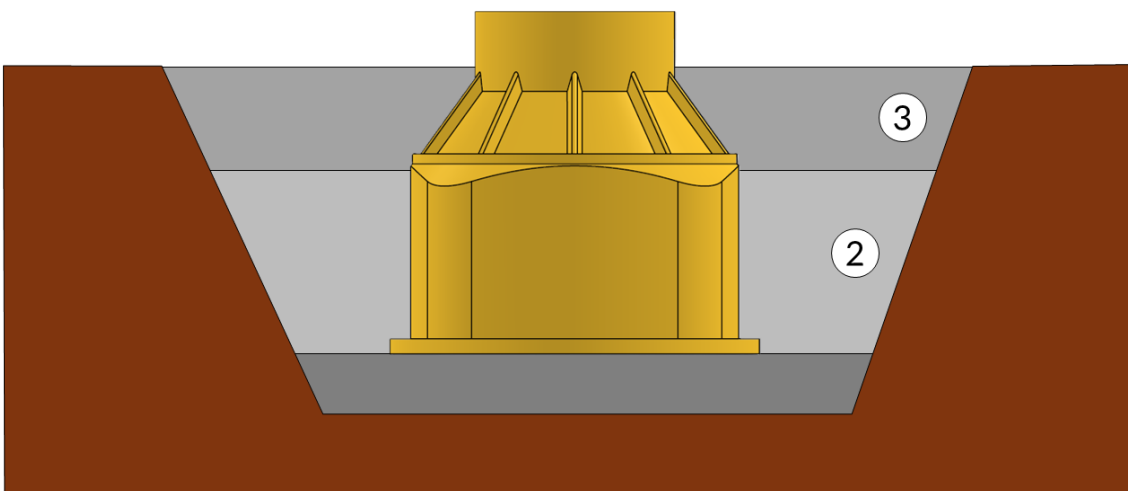
The excavation must be dug to the required depth. A stable, level blinding layer (1) must then be constructed at the required elevation.



2.2 PREPARE BEDDING AND BACKFILL

The bedding and/or side backfill (2), as well as the backfill above the pipes or chamber (3), must be installed in layers and carefully compacted. Care must be taken to ensure uniform, load-bearing, and settlement-free construction.

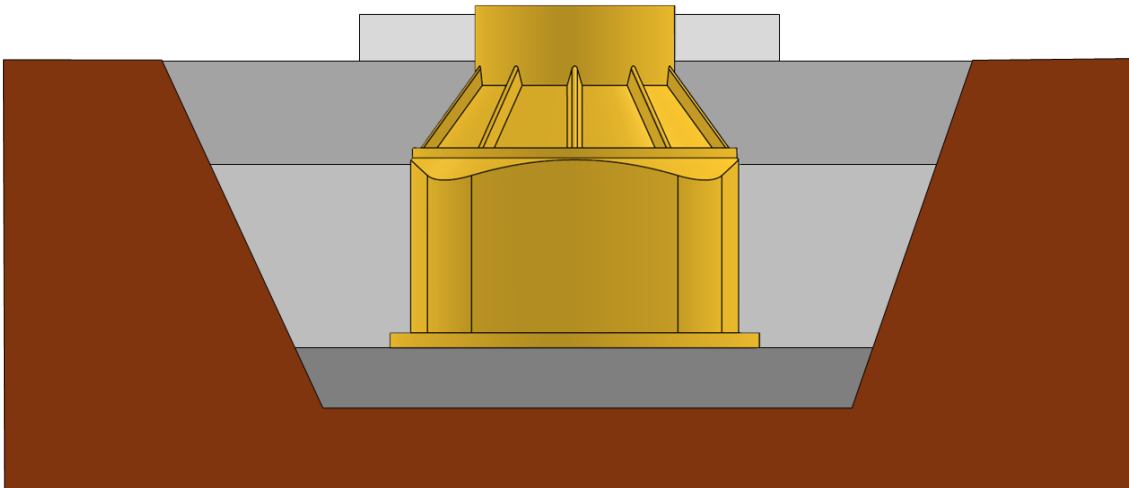
Further details can be found in the installation and operating instructions for HIRO distribution chambers.



2.3 CREATE LOAD TRANSFER STRUCTURE

The load transfer structure must be constructed according to the selected design. This may be achieved using a prefabricated load distribution ring, a suitable manhole grouting mortar, or an in-situ concrete construction.

The installation must ensure that all loads are safely transferred into the load-bearing substructure and are not transmitted directly to the chamber body.



2.4 INSTALL COVER FRAME AND COMPLETE SURFACE CONSTRUCTION

The seal must be installed on the chamber neck. The cover frame is then positioned, aligned, and integrated into the prepared load transfer structure. The remaining surface construction (4) must then be completed in accordance with the planned surface finish.

It must be ensured that the cover frame is aligned to the correct elevation and finishes flush with the final surface.

