

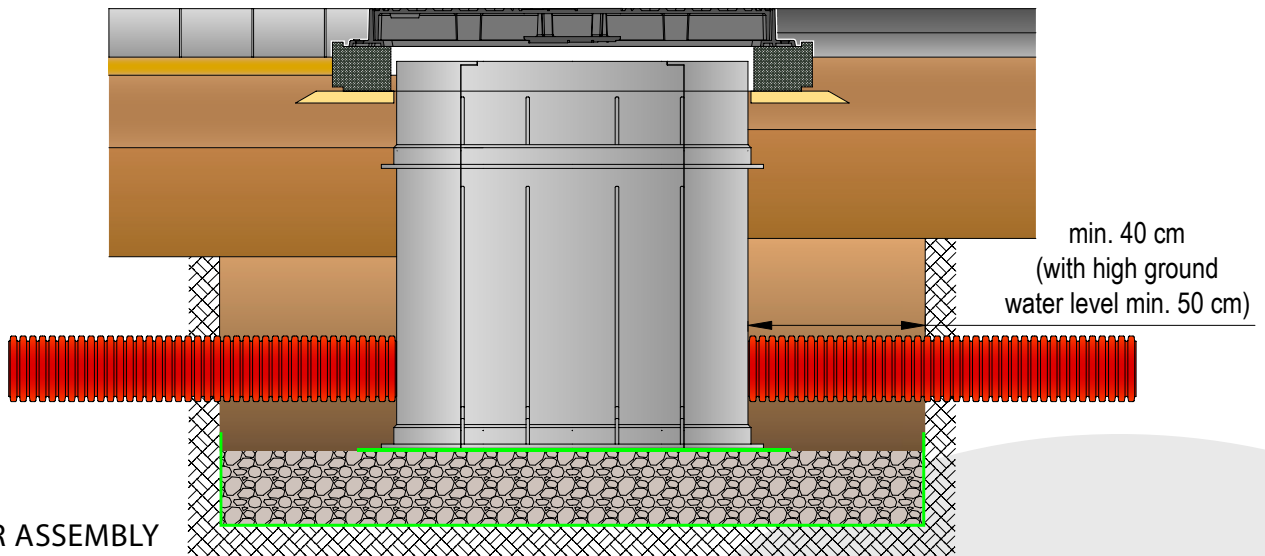


RADBOX installation manual

The guidelines and construction methods specified in this document apply to RADBOX cable chambers. This document is intended as a construction guideline and is not applicable to any specific construction project. It should be taken into account that when evaluating the situation at the construction site and/or based on the solutions provided in the project, it may be necessary to use other construction methods. All construction work related to the RADBOX chamber must be carried out in accordance with the requirements written in the CEN/TR 1046 and LVS EN 1610 standards.

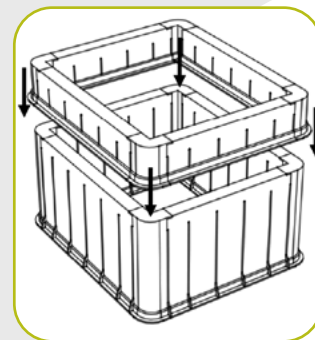
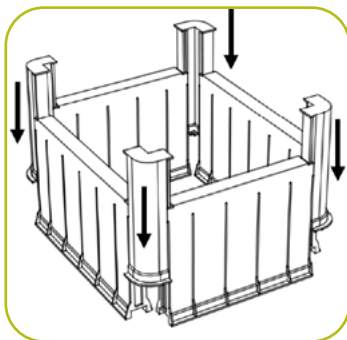
TRENCH PREPARATION

- The width/length of the trench should be 80 cm (40 cm on each side of the outer wall of the chamber) greater than the width/length of the chamber. In situations where the construction work has to be carried out in conditions of high groundwater level, the width/length of the trench should be 100 cm (50 cm on each side of the outer wall of the chamber) greater than the width/length of the chamber.
- The base of the trench must be made of a 100 mm thick layer of compacted gravel (fr. size 20-40 mm).
- When installing a Radbox chamber in the carriage way of the road (zone D400), the base of the trench must be formed by installing a 100 mm thick reinforced concrete plate with dimensions 50 mm larger than the lower outer length/width of the chamber.



CHAMBER ASSEMBLY

Radbox chambers are made from interlocking panels, corner fittings and panel connection fittings. If provided, metal beams are installed to ensure the strength of the chamber wall. When the chamber section is created, it is installed in the trench. The next chamber section (if any) is created at the edge of the trench and then installed on top of the previously constructed chamber section.





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CREATION OF CONNECTIONS

The entrances of the cable protection pipes in the Radbox chamber are created by drilling holes in the wall of the chamber panel with a core drill. Connection points must not be made where the wall panel connects to the corner fitting. Complying with all the requirements regarding the distances between cable pipes, cable entries may also be made at the point where the lower and upper chamber sections connect to each other. Whenever possible, cable entries are made before the chamber is assembled. This method of work facilitates the creation of cable entries. It is important to use a sufficiently long core drill to ensure the symmetry of the cable entry opening on the inner and outer walls of the panel.

TRENCH FILLING

The filling of the trench must meet all the requirements set forth in the project. Special attention should be paid to the compaction process in the area around the cable entries. Compaction in the trench must be carried out in layers by compacting each layer to the required degree. The backfilling of the chamber trench must be done by creating 20 cm thick soil layers, each layer of soil material being compacted to the degree of soil density $SPD \geq 98\%$ (Standard Proctor density), which according to DIN 18127 and EN 13286-2 corresponds to the soil material compaction class W (Well) "well compacted".

CONSTRUCTION AND ASSEMBLY OF CHAMBER COVER

The construction of the chamber cover begins with the installation of the support ring at the required height. After that, the chamber cover (frame and cover) is installed on the support ring. It must be ensured that all specified minimum construction distances related to the assembly of the cover are observed. If in the course of the construction works it becomes clear that for the successful construction of the chamber it is necessary to increase the height of the chamber, it can be done as follows:

- 1) increasing the height of the Radbox chamber with a new panel section (150 mm);
- 2) in the case of a reinforced concrete support frame - by raising the construction level of the frame (50mm);
- 3) in the case of a polymer support frame - by installing an additional support frame (15mm, 25mm, 50mm, 75mm - height variations depend on the type of frame).

The chamber cover must be built at the same level as the road/street surface and in accordance with the technical regulations of the road/street overseeing manager.

Creation of cable pipe entries



Assembly of a RADBOX chamber

