Concrete earth pit (concrete earth inspection pit)

310 × 310 × 170



The KALOT Group concrete earth pit sits over the earth rod or earth well and keeps the joint between the earth electrode and the conductors accessible for inspection and resistance measurement, with no digging. Its body and cover are precast reinforced concrete, it measures 310 × 310 × 170 mm, and once installed the top of the cover sits flush with the ground. A bar sits in slots across the pit diagonal and, with cable lugs, links the earth rod conductor, the lightning down conductor, the building conductor and the conductor to the next pit. The pit is made to IEC 62561-5 and was rated Medium class (M) in the load test. We also recommend the right bar, clamps and cable lugs.

- Compliant with IEC 62561-5, medium load class (M)
- Open base for the earth rod to enter
- Earth bar slots across the diagonal of the pit
- Precast reinforced concrete body and cover

Technical specifications

Type	Earth electrode inspection pit (earth inspection chamber)
Body and cover material	Precast reinforced concrete
Dimensions	310 × 310 × 170 mm (length × width × overall height with cover)
Weight	21.2 kg (with cover)
Body	Square frame with no base and sloping walls; slots at the bottom of two opposite walls for conductors to pass through
Cover	Concrete slab with a lifting slot, seated in the top rim of the body
Standard	As per IEC 62561-5
Load class	Medium class (M) in the load test IEC 62561-5; withstands 15 kN (about 1.5 tonnes)
Bar seating	Slots across the diagonal of the pit, for an upright earth bar
Bar (supplied separately)	300 × 50 × 5 mm (both ends bevelled, short edge 280); 4 holes Ø12 (standard); more holes to order; bare copper, tinned copper or stainless steel
Earth bar bolts, nuts and washers	Stainless steel; supplied separately
Base	Open; the earth rod enters the pit from the floor
Installation location	Over the head of the earth rod or earth pit, level with the finished ground, with concrete around the pit

Sizes

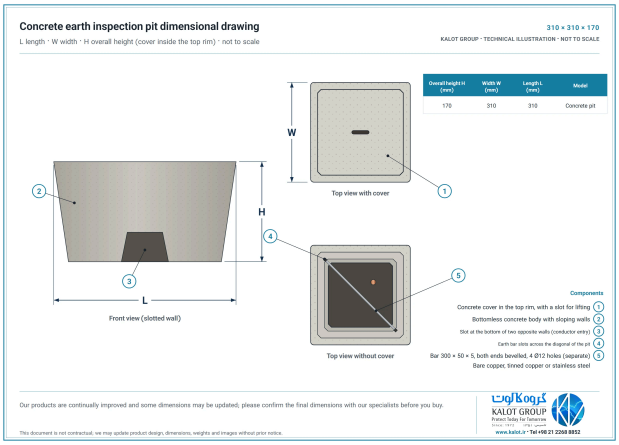
Model	Length L (mm)	Width W (mm)	Overall height H (mm)
Concrete pit	310	310	170

Dimensions are in millimetres. The overall height includes the cover. The body narrows towards the bottom with sloping walls, and once installed the top of the cover is level with the finished ground. We are always improving our products and some dimensions may be updated, so please confirm the final dimensions with our specialists before you buy.

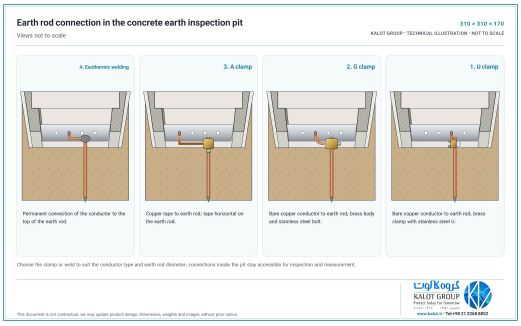
Medium load class (M)

This document is not contractual; we may update product design, dimensions, weights and images without prior notice.

Dimensional drawing



Earth rod connection inside the pit



Installation

1. Dig a hole that leaves enough room around the pit for pouring concrete, and drive the earth rod until the design resistance is reached. 2. Lay a gravel bed on the bottom of the hole and around the earth rod so water drains and the pit sits level on the bed. 3. Set the pit on the bed so the earth rod enters through its open base and the top of the cover is flush with finished ground level. 4. Connect the earth rod to the conductor with a U clamp, G clamp, A clamp or exothermic welding, and bring the external conductors into the pit through the slot at the bottom of the wall. 5. Stand the bar upright, longer edge up, in the slots across the pit diagonal so its two bevelled ends match the sloping walls; then fix the earth rod conductor, the down conductor, the building conductor and the conductor to the next pit, each with a cable lug on its own hole; put the earth rod conductor on an end hole so it is easy to undo for testing. Tighten the bolts to the manufacturer's instructions. 6. Always pour concrete around the pit so it stays in place and does not tilt or settle over time; take care that no concrete runs into the pit through the slot at the bottom of the wall. Then backfill and level the surroundings. 7. Undo the earth rod conductor's cable lug from the bar to isolate the earth rod from the rest of the system, measure and record its resistance; then refit the cable lug to the bar and put the concrete cover in place.

Pit construction

The pit has two parts, a body and a cover, both of precast reinforced concrete. The body is a square frame with no base that narrows towards the bottom with sloping walls. The earth rod enters through the open base, and the slots at the bottom of two opposite walls let the conductors through. Slots across the diagonal of the pit hold the earth bar upright so that conductors can be fixed to it with cable lugs, and the bar's two angled ends match the sloping walls. The cover is a concrete slab that sits on a step inside the top rim of the body and is lifted and replaced using the slot in it.

Selection and enquiries

For a price on the concrete earth pit, send our specialists the quantity, the installation location, the earth rod diameter, the conductor