

Cadent

Your Gas Network

Alterations

Excavation guide



About this document

Before excavating, it's important you review and understand the safe digging practices that are contained in Health and Safety document HS(G)47 "Avoiding Danger from Underground Services".

Key points to note

- Customers can only excavate on their own property (private land).
- Cadent will excavate any public highways, roads and footpaths.
- Excavation is not available for owners of flats, maisonettes or other shared residency buildings.
- If the route for your new pipe runs across land you don't own (excluding public roads/footways/verges), you will need permission from the landowner before work begins.
- Cadent will undertake a survey to assist you in planning this work and no excavations should be undertaken until this has been completed.
- The trench must be excavated from the property wall at the point of the new meter position and terminate 1m from the existing live gas service pipe within your property boundary.
- Your appointed person/organisation must trace the route of the existing service pipe with approved underground service detection/plant location equipment such as a CAT and Genny.
- Where this is not possible, i.e. where the existing service is plastic, the competent person will need to estimate the route of the service pipe by taking a straight line from the existing meter location (or visible gas service entry point) to the nearest road. This should indicate the likely route of your service.
- Please be aware that these methods can only provide an indication of the route. Digging must still proceed with care.
- The trench must be excavated to a depth of 425mm (17") and must be between 200–300 mm wide (8" and 12").
- The bottom of the trench must be level and free from all sharp and/or stone materials which may damage the service pipe. In any ground containing sharp stones, it will be necessary to excavate a further 3" (75mm) and fill this space with fine material e.g. sand or stone dust to lay the new pipe on.
- Gas pipes should be laid a minimum of 300mm (12") from electricity cables and 250mm (10") from other utilities apparatus (e.g. water, BT, TV cables, drains, etc.).
- The pipe route must be a straight line (If the nature of the works does not allow this, any change of direction should be made at 90-degree angles and excavated to allow sufficient curvature for the required radial bend of the pipe being laid – please refer to **Table 1** below).

| Pipe size | Minimum bend radius |
|-----------|---------------------|
| 20mm | 0.3m |
| 25mm | 0.4m |
| 32mm | 0.5m |
| 63mm | 1.0m |

Table 1: Minimum bend radius

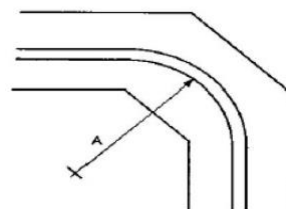


Figure 1: Minimum bend radius

- During the backfill process, Gas Marker tape should be installed a minimum of 75mm above the duct and should be placed at a convenient depth between the backfill and sub-base layers in road or footpath constructions, or 250mm above the crown of the main in unmade ground.
- Mechanical compaction equipment must not be used within 200mm (8") of the crown of the gas service pipe. Layers of backfill material must be hand rammed until this depth of cover is achieved.
- If scaffolding or similar temporary structures are being used, the trench must be as far away from any of the vertical supports as possible to minimise the risk of a collapse. Ideally ducting should be installed and the ground reinstated prior to any scaffold being erected (see **Table 2** below). Cadent will **NOT** work beneath any scaffold or similar temporary structures where the trench is too close to any vertical support(s) or if other personnel are working overhead.
- The person/organisation you appoint to carry out the excavation is also responsible for ensuring that the excavation site is safely guarded. This should be done through the use of an appropriate, protective barrier system which offers sufficient protection to any person who may have access to your property.

| Mains and service pipe diameter | Pipe location | Recommended minimum depth of cover (mm) |
|--|----------------------|--|
| All diameter mains | In field | 1100 |
| | In roads & verges | 750 |
| | In footpaths | 600 |
| Services above 63mm/2" | In field | 1100 |
| | In roads & verges | 750 |
| | In footpaths | 600 |
| | In private property | Min. 600 |
| Services up to and including 63mm/2" | In roads & verges | 450 |
| | In footpaths | 450 |
| | In private property | 375 |

Table 2: Recommended minimum depth of cover for mains and services