

ACO EzyBrixx® installation

– MANUFACTURERS GUIDE FOR CABLE PIT INSTALLERS.

This guide is to be read with ACO's EzyBrixx® Pit Installation Drawings: IC003, IC004 and IC005. These are available from <https://www.acocablemate.com.au/product-support/downloads/>) Product information is accessible from <https://www.acocablemate.com.au/products/ezybrixx-twin-wall-pits/>.

Installing pits involves excavation, positioning pits and backfilling. The following methodology should be taken as general advice only and may need modification for specific applications. This is because cable routes can pass through a number of different environments with varying factors (traffic, soil conditions etc.). Individual pits therefore may need specific consideration.

Installation, safety precautions, inspection and maintenance methods must comply with relevant laws, codes and cable manufacturer's recommendations. If in doubt, ACO recommends installers seek engineering advice.

General methodology:

1. Excavate beyond the overall dimensions of the pit by make allowance for working space, backfill and compaction equipment as well as the depth of the bedding layer.
2. Remove all loose material from the excavation and compact and level the base. If not specified by the project engineer, compaction to 95% of the maximum dry weight (95% RDD - Relative Dry Density) is recommended.
3. Construct the bedding. The material depends on the application.

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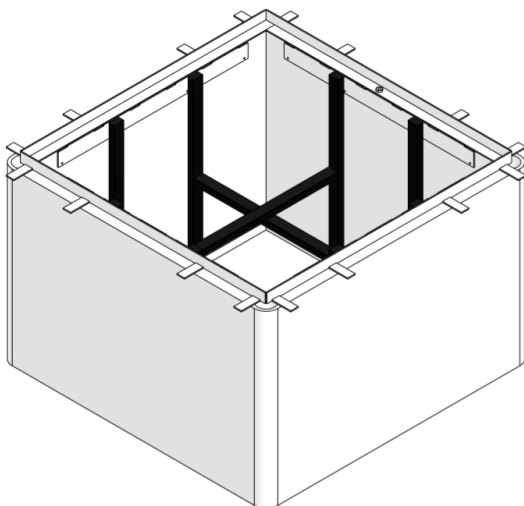
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4. Mark all conduit entries on pit walls:
 - Align the cable exit and entry points so that cables can be pulled easily (if applicable)
 - Allow a minimum of 50mm clearance from the bottom of the pit to avoid silt interference.
 - Allow a minimum of 75mm spacing between conduit entries.
 - For multiple rows of conduit entries or if the accumulative area of the holes is greater than 20% of the sidewall area, wall reinforcement is recommended. Installers may choose to cast a concrete haunch against the outside face of the wall and around all conduits and/or bolt some stiffening members between rows of conduit entries. If in doubt, contact ACO for advice.
5. Use a holesaw of required size to cut out conduit entries. ACO offers a range of holesaws to suit.
6. Lower pit with lifting slings provided on the bedding (constructed in Step 3). If the bedding is loose or unstable (for instance, sand or aggregate) consider whether reinforcement is needed to resist lateral forces pushing inwards. If in doubt contact ACO.
7. Ensure top of pit is level with the finished pavement level.
8. Connect conduit to the conduit entries:
 - Ensure the working area is clear.
 - Conduits must have sharp edges removed from their internal surfaces.
 - Fit conduits with bushes (or other cable protection accessories) ensuring they are flush with the inside of the pit wall. It is critical that when cables are pulled, they are not damaged.
 - Using a flexible proprietary product, seal conduits to prevent ingress of moisture and silt from entering the pit during service.
 - Installers may also choose to raise the bedding haunch around all conduits to secure the connection (described in Step 4).

9.



Install temporary bracing within the pit before backfilling. The bracing should be arranged according to the height and length of the pit walls and the level of compaction anticipated. Care should be taken to ensure loads are distributed evenly along the pit walls. Point loads may distort the pit or overload the joints. Proper bracing will ensure the pit integrity whilst the backfilling process is complete. ACO is not liable for pits that have been damaged by over-compaction. The adjacent illustration is a guide only.

10. After marking the position of accessories for drilling, install any required pit accessories.
11. Position lid/beams(s) into rebate and backfill the pit with sand or aggregate in layers and compact manually. Using sand or clean fill, lightly compact at 300mm increments. Do not over compact. (described in Step 9).
12. Level or finish the concrete, lay pavers or other pavement materials

Caution: Be wary of construction traffic. It is advisable to steer traffic away from the enclosure before the installation is complete.

Special notes

- If a drain is required, follow Project Engineer's specification.
- For heavy-duty applications, a concrete collar or concrete backfill may be required
- If an access cover (cover and frame system) is to be used in lieu of a lid, then the pit must be set deeper to accommodate for the depth of the concrete collar– see adjacent image. In this instance, frames are installed in a concrete collar and make no contact with the pit wall structure. To construct this
 - Form the rebate to size
 - Position the cover/frame into the rebate
 - Pour and vibrate concrete around it.Contact ACO for detailed instructions.
- If an access cover is to be used with an EzyBrixx® pit, select a 'Pit for Access Covers' from ACO's product range where the top of the pit comes complete with capping. Capping supports the pit opening during installation.
- If ancillary cable equipment is to be secured to the pit (for instance an anchor for pulling eyes), then local strengthening of the wall is recommended. If in doubt, contact ACO for advice.
- Bases for larger sizes are supplied loose for easy transport. These can be screwed directly into the pit wall.
- Where pits without bases are to be positioned on a wet concrete bedding, it is recommended that they are made to sink into the concrete by 20mm. If they are to be positioned on set concrete, a layer of 20mm deep concrete/screed should be poured inside the pit. Both measures give pits some lateral stability for during and after construction.

