

MONObox™

The Superior Injection Moulded
Plastic Pit Range Installation Guide



**Infrastructure
Products AU**

A CRH COMPANY

The Infrastructure Products Australia difference

Our vision is simple - we focus on partnerships and innovation to deliver the best solutions for our clients, on time and on budget, by adding value in service, quality and efficiencies.

We have teams with the experience and knowledge and in the right locations so that your project runs smoothly. Since our early beginnings, our business has been driven by constantly improving our products, so that you get a longer lasting, cost-efficient installation.

Plus, you'll benefit from the strength and global support of CRH, our parent company, a worldwide leader in diversified building products.

Combined, this has enabled us to offer sophisticated service solutions for companies like Telstra, National Broadband Network, Australian Department of Defence, VicRoads, local councils across Australia and more.

- | We design, manufacture, and distribute superior plastic and precast pits and covers
- | We offer unmatched flexibility of scale, engineering expertise and product range
- | We have global experience and reach, but local responsiveness and knowledge

Introduction

Infrastructure Products Australia manufactures and distributes a wide range of precast concrete and access covers for all major Australian sectors with Class A to G load capabilities.

Working with State, Local and Industry authorities, Infrastructure Products Australia offers one of the most diverse ranges of approved and custom engineered precast concrete network asset solutions on the market.

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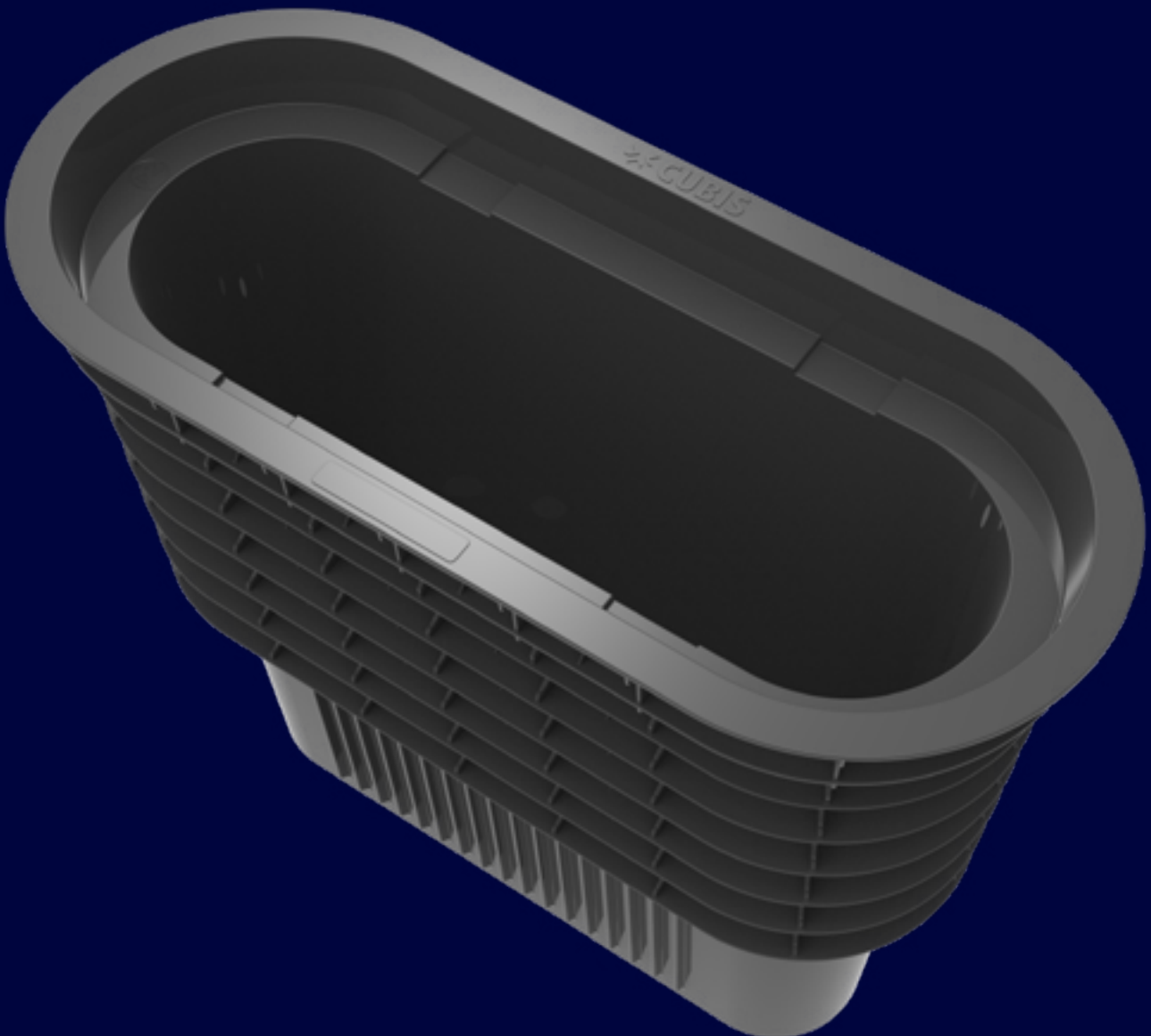
HEALTH & SAFETY

Notice

In areas where the public have access, the site should be properly signed and guarded in accordance with the State and Territory regulators, laws and codes on health and safety.

Additionally, all other safety precautions required by legislation, the customer and as specified by the contract, the local authorities, other landowners and the police should be observed at all times.

Before excavation takes place, all necessary precautions to locate and protect existing buried services in the location of the box culvert should be taken.

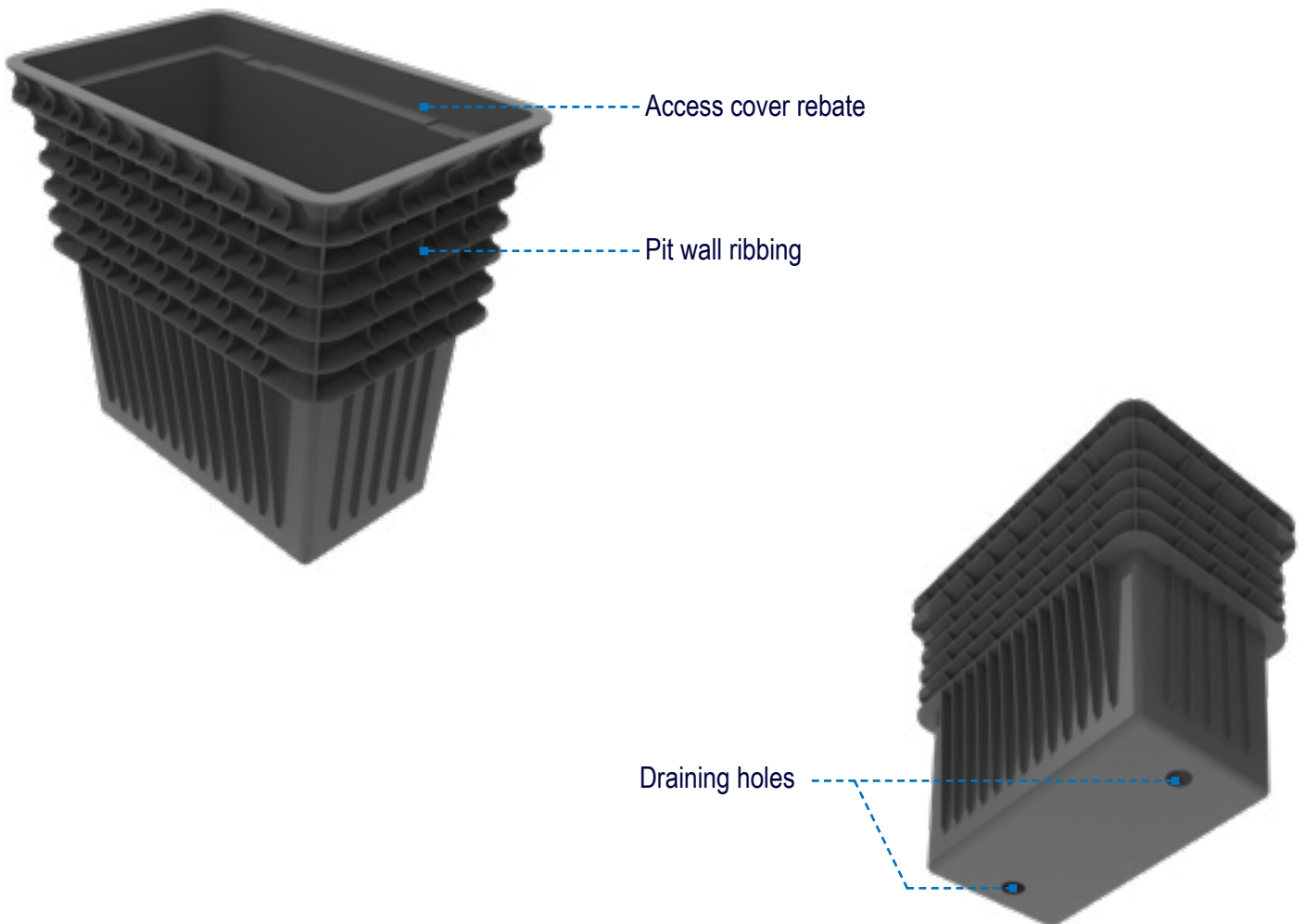


PRODUCT DESCRIPTION

MONObox™ Plastic Pits

MONObox™ plastic pits are manufactured using polyethylene plastic material by a injection moulding process.

All MONObox™ pits are designed with thick walls and heavy ribbing to ensure pit integrity once installed (i.e. against soil pressures).



INSTALLATION GUIDELINES

Bed Preparation

- 1 Locate, identify, expose and pacify all underground material in the vicinity.

- 2 Excavate area for the MONObox™ pit, providing a minimum of 300mm clearance on all sides and 100mm at the base to allow for bedding material.

- 3 Bedding material and compaction should comply to the standard set by the relevant asset owner, authority or site specification (generally coarse sand or crusher dust preferred).

- 4 Firmly compact approved bedding material to a minimum thickness of 100mm below the pit (prior to installation of MONObox™ pit).

- 5 Ensure the final bed is even, firm and stable, providing a level surface on which to install the MONObox™ plastic pit.



INSTALLATION GUIDELINES

Conduit Entries

- 6 Prior to installation, prepare MONObox™ pit by marking end walls and cutting out required conduit entry holes using an electric/battery powered hole saw.

- 7 Brown field applications P5 injection moulded pit

Following the proposed process will ensure an easy replacement of existing inground P5 pits and retain the structural integrity of the pit.

- a. Measure existing services from either base or from finish surface level (if base will be packed) to determine the level of cut. Using a reciprocating saw, begin cutting at the selected level between the primary lateral rib and the (small) joining rib. Continue to saw excess plastic (ring).



Important Step: The base half must be above the primary large rib. This Insures screws have a large area to grip.

INSTALLATION GUIDELINES

Conduit Entries

- b. Once the two halves have been separated cut any excess material on the top and bottom surfaces flat. This will provide the best chance for each surface to sit flush.



- c. Core holes where required and position the bottom half into the hole. Do the same with the top half.



INSTALLATION GUIDELINES

Conduit Entries

d. Place the bottom half of the pit around the cables



e. Place the top half Using the Telstra recommended self-drilling screws, start drill through horizontally and angle 45° down.



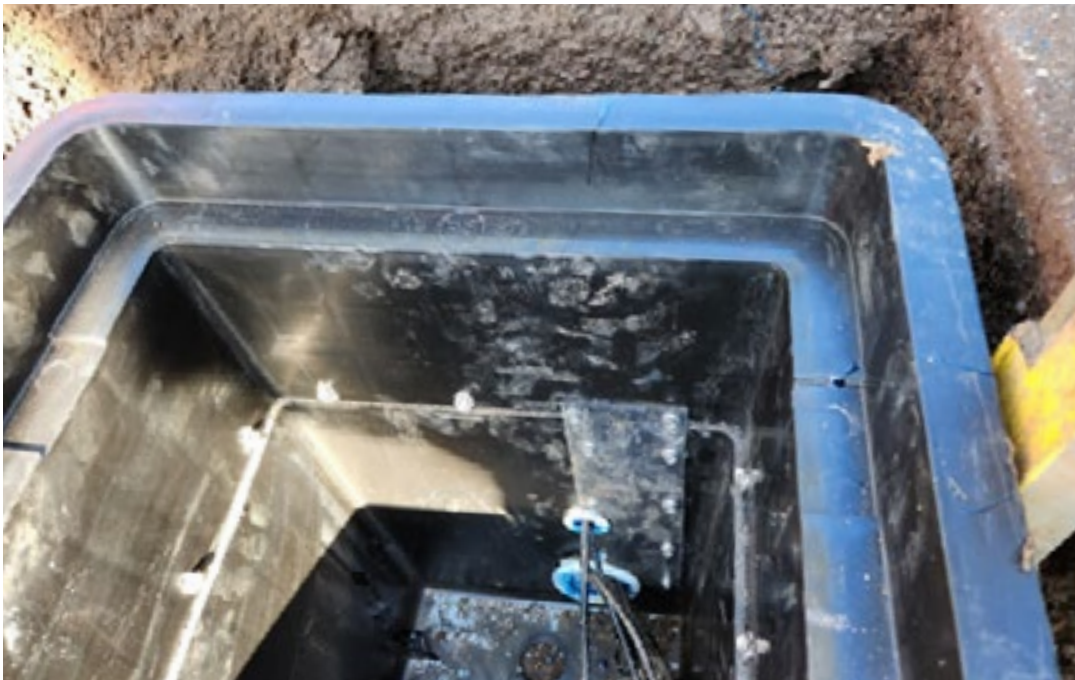
INSTALLATION GUIDELINES

Conduit Entries

f. Screws shall be placed at maximum 100mm spacing



g. Use patch kits to seal the vertical cuts in the bottom section



INSTALLATION GUIDELINES

Backfilling

- 8 Place Cubis access cover/s into rebate of MONObox™ pit.
.....
- 9 Backfill around the pit according to specification of relevant asset owner or authority.
 - a. The use of clean soil, builder sand or crusher dust (finely crushed rock) is generally preferred.
 - b. Layers of the compactable material not exceeding 300mm depth per layer, shall be placed around the MONObox™ pit and compacted evenly.
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- 10 Continue backfilling the site to fill entire excavation until level with ground surface or pavement. Clean the pit's edges and surrounding surface levels.
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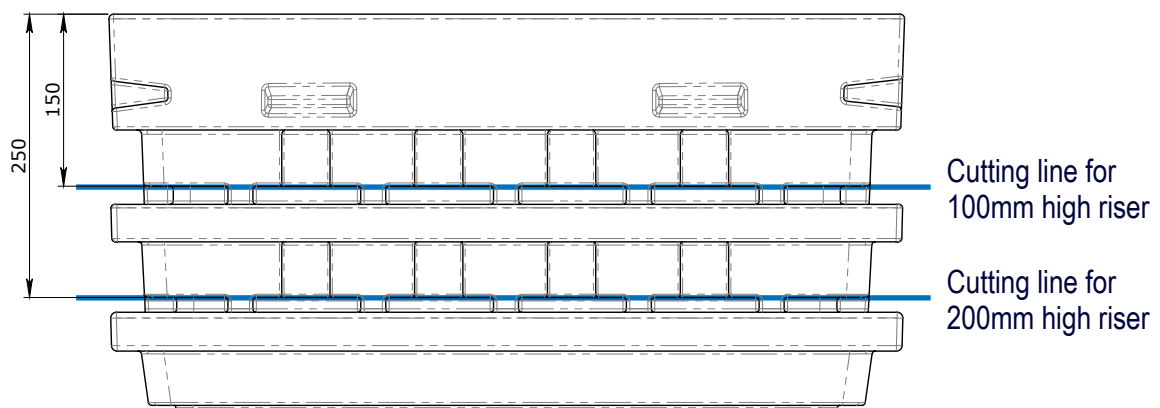
Finished Install



INSTALLATION GUIDELINES

Pit Height Adjustment

- 11 The depth of a MONObox™ pit can be increased by installing a Cubis plastic collar on top of the pit.
- 12 The actual depth of the pit and collar should be determined by measuring from the opening of the pit (area where the lid/s rest) to the bottom of the pit.
- 13 The maximum depth from the pavement (footpath) level of an installed MONObox™ pit fitted with a collar can be obtained from a customer drawing supplied by Cubis Systems.
- 14 The Cubis plastic collar can be cut to provide various depths: 100, 200 and 300mm. Cut collar of 100 or 200mm depth is required. Keep the cut straight. See
- 15 Ensure the final bed is even, firm and stable, providing a level surface on which to install the MONObox™ plastic pit.



INSTALLATION GUIDELINES

Backfilling

- 18 Place the collar onto the top of the MONObox™ pit. Ensure the cut edge of the collar rests inside the top of the pit on the ledge where the covers would sit.

- 19 Drive self-tapping screws from inside the Cubis plastic collar into the top rim of the pit.
 - a. Screw the collar to the MONObox™ pit using 35mm self tapping screws. Place screws no more than 100mm apart.
 - b. From the inside of the pit, drive the screws horizontally through the collar into the MONObox™ pit.

- 20 Continue backfilling the site to fill entire excavation until level with ground surface or pavement. Clean the pit's edges and surrounding surface levels.



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