Zers

SMART SUSTAINABLE FOUNDATIONS®

"Smart Sustainable Foundations® provide a significant cost benefit by re-using the existing footing and reduce risk of injury to employees"

Main Roads WA



USER MANUAL

UNIT INCLUDES

- Bollard 600D CHS
- Ground Socket
- Self-locking Taper
- Cap
- Self-drilling screws supplied

When bollards are not in use, socket must be capped to protect from dirt, grit and sunlight.

Units must be stored in boxes provided, away from sunlight prior to installation and must not be subject to unwarranted pressure

INSTALLATION

Sockets can be installed in concrete, asphalt or paved areas when pouring foundations (or retrofitted) creating a perfect finish that will endure for generations/ Please make sure it is neat as it will be around longer than you and I.



SECURED USING SELF-LOCKING TAPER

A self-locking taper is secured to bollards using self-drilling screws (you can remove and re-use Taper and galvanised screws) or buy new bollards with Taper attached, ready to install.

NB: Taper must be attached at correct level (340 mm from base of post) to ensure item is sufficiently resistant to unauthorised removal, (the lower the taper the stronger the locking capacity)

FOUNDATION REQUIRED

The footing needs to be large enough to ensure it will not be dislodged if item is impacted.

Good quality concrete can last 100 years but rapid set will not- choose wisely. Allow 150 mm of good quality concrete on all sides of socket to protect paving and ground socket from damage

FAST EFFICIENT INSTALLATION

Bollards can be installed when pouring concrete foundations, (or retrofitted) and you can install hundreds of bollards in a single day







INSTALL GROUND SOCKET OR INSTALL ITEM WHEN POURING FOOTINGS

- If you want drainage, pierce hole in base of socket and place approximately 50 mm of rubble beneath socket
- 2. Attach Taper to post using self-drilling screws and place gently in ground socket

NB: If items are not ready to install, insert installation tool in ground socket and use to position upright in hole.

- **3.** Dig hole (core drill or remove pavers if retrofitting) and place a small amount of rubble beneath socket.
- **4.** Position socket upright in hole so that socket finishes flush with ground level (allowing for pavers) and secure with a little concrete
- **5.** Pour concrete and use spirit level to check alignment before concrete cures. Once cured, check item is fully installed



Please take care when retrofitting to match surrounding concrete, as (unlike traditional installations) your handiwork will be around for generations to see. Bollards remain perfectly aligned year after year and if impacted can be replaced quickly and efficiently.

REMOVING BOLLARDS

- 1. Place base of removal tool as close as possible to the base of the bollard
- 2. Hook foot of removal tool around the bollard, (handle will rise as you do this)
- 3. Move handle down with jerking action to release the bollard

SOCKET MUST BE CAPPED

If item is removed, socket must be capped to prevent ingress of dirt and grit

FLATTENED BOLLARDS

If bollard is flattened use the base of the removal tool to lever post up. Foot tool can also be used for removing flattened bollards

REMOVING SHEARED BOLLARDS

Lever open the sheared off bollard enough to allow the triangular head of the tool to drop down into the cavity. Hook a link of chain to the peg at the top of the vertical lifting bar



Place the base of the removal tool close to hole and raise the handle until the triangular head grips the inside of the bollard. Apply sharp downward pressure to handle, as usual, to remove sheared bollard and taper from ground socket





SECURING BOLLARDS

- 1. Use electric screw driver to remove Taper from damaged post
- 2. Attach Taper to bollard using self-drilling screws supplied. PH2 Phillips drive used to install Self drilling screws
- 340 mm from base for 350 mm socket
- 3. Fit second half Taper level with first. NB: Only one screw is required to attach each half Taper (other hole is spare)

TAPER SHOULD NOT PROTRUDE

Drop item firmly into the ground socket and tap item down until Taper finishes flush to ensure it will not be damaged when item is impacted and can be removed and re-used time and time again. Spare hole provided

If taper protrudes, check no grit has entered socket and that taper is attached at correct level.

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