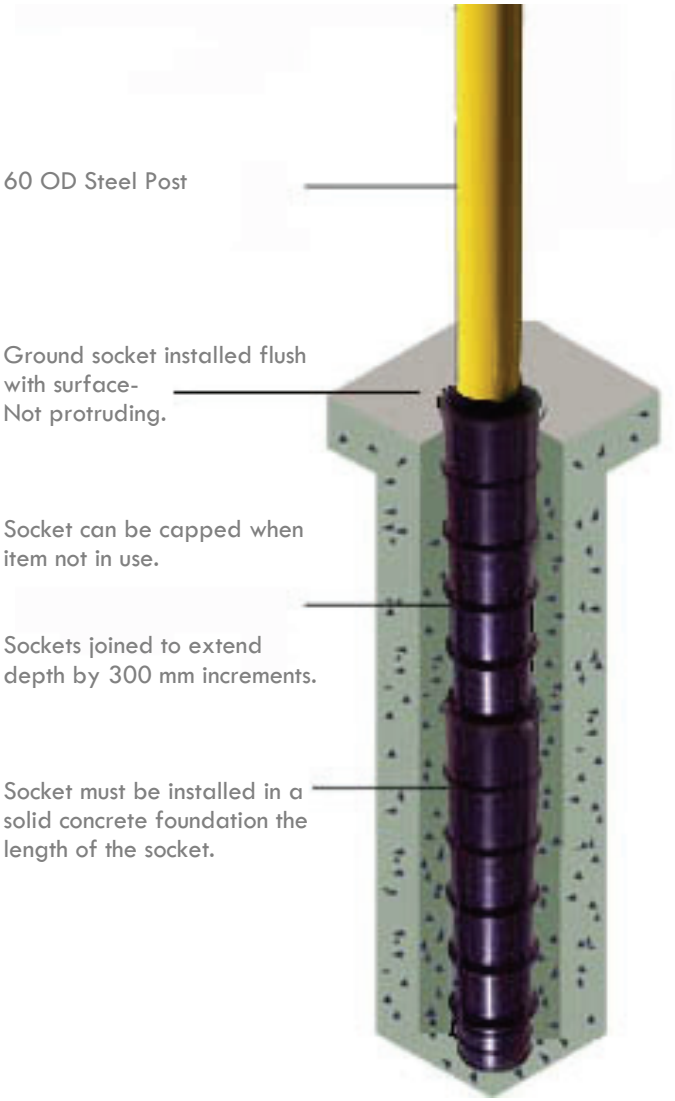
Install units in solid concrete foundation.

The foundation should be permanent so it must be large enough to ensure it is not dislodged when impacted. It should be solid concrete to ensure it does not crumble or crack when impacted.



Determining Depth of base

The base must be large enough to ensure foundations are not disturbed when the bollard is impacted, (requirements will differ according to soil and existing foundation conditions). Please refer to standard installation specifications for your region. As a guide:

- **350 mm "standard" units** can be used to secure the socket into a solid concrete foundation or road base, to provided adequate resistance against dislodgement. We suggest a base approximately 3-400 mm square by 400 mm deep, allowing approx 50 mm concrete for beneath the ground socket.

- **650 mm "extended" units** are recommended for installing bollards in other locations. Suggest base 4-500 mm square by 700 mm deep, allowing for approx 50 mm concrete beneath the ground socket.

Please Note: In a solid concrete base the size of the hole made for the installation of the socket becomes irrelevant as the surrounding concrete provides the stability required.

If base is dislodged: If the foundation has not been made secure enough and is dislodged when impacted it can be realigned and a little more concrete used to re-secure the base. The base does not have to be discarded.

Extending depth of socket: To extend depth of socket you cut the base off one ground socket, just below the middle rib, (Approx. 20 mm from base of ground socket) and insert the modified ground socket into top of standard ground socket. Refer to specs for details.

Sustainable Infrastructure Solutions

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Installation Instructions for 60OD Removable Bollards Auto Lock & Release Socket

Sustainable Infrastructure Solutions

REFER TO SPECIFICATION DRAWINGS
Refer to Specifications for a complete diagrammatical guide to installing units. Call our office to be emailed copies, or download from the web site at www.sis-ww.com

UNIT INCLUDES:

1 x 350 mm Ground socket

1 x 270 mm Wedge (comes in two halves)

1 Cap

Self-drilling screws, to secure wedge

Additional socket can be purchased to extend depth

REFER TO SPECIFICATION DRAWINGS

Impact Recovery System Specification drawings should be referred to by all persons installing units for the first time. The specifications provide comprehensive details on how to correctly install units and directions for constructing additional installation tools for large projects. These can be downloaded from sis-ww.com or call your distributor for copies to be e-mailed to you.

INSTALLATION TOOL MUST BE USED

The installation tool will stop the ground socket from being distorted when concrete is impacted and enable installation of socket from a standing position. If the installation tool is not used, posts will not necessarily lock in with over 200 kg of force and you will void your warranty.

Fit installation tool in ground socket and place into the hole. Place concrete in hole and tamp down, making sure the unit is correctly aligned.

DIG HOLE

Ensure hole is deep enough to allow the top of the Ground Socket to finish level with the top of the concrete foundation or brick-paving, allowing 50 mm for concrete at the base of the socket, (IE: 400 mm for 350 mm socket).

For new works:

When laying concrete foundations or footpaths you simply dig a small hole to secure the socket in an upright position (ensuring when concrete is poured it will finish level with the top of the socket- NB if paving is to be installed, leave enough of the socket protruding from the concrete to allow for brick-paving).

When retro-fitting units

Hole can be core drilled, or bricks simply removed and hole excavated beneath brick paving. N.B.: The base can be "belled" out for greater protection from impact. Refer to notes on back page regarding size of base.

FILL WITH SOLID CONCRETE TO SURFACE

Fill hole with concrete level with surrounding brick paving or concrete surface & top of ground socket, dress off. NB: For a solid concrete foundation do not use rapid set concrete which can crumble upon impact.

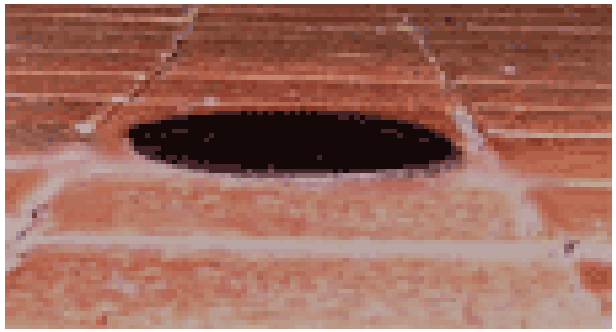
REMOVE INSTALLATION TOOL & CAP

Place foot on lip of ground socket and carefully rotate installation tool to remove. Dress off surface and install cap, or **when concrete is sufficiently dry**, install post.

ELECTRICAL WIRING OR DRAINAGE

A hole can be pierced at the base of the socket after it has been installed (by dropping a crowbar or similar tool into socket to pierce a hole in base), this will allow access for electrical wiring or for drainage. If a hole is pierced in the socket we suggest placing a small amount of rubble at the base of the socket rather than concrete- to enable drainage.
NB: If hole is not pierced, rubble is not required.

UNITS FLUSH WITH SURFACE NOT PROTRUDING!



When installed correctly the ground socket should be flush with the surface of the footpath or brick paving as shown above- Cap installed. No trip factors with or without cap installed. **If installed correctly it will be in place for generations to view.**

NB: REFER TO SPECIFICATION DRAWINGS FOR DETAILS
Refer to Specification drawings for a complete diagrammatical guide to installing units.
NB: MRWA Specs available upon request.