

What Are Root Fixed Posts?

Website reference guide for barriers, gates, bollards and other permanent steel posts

What does 'root fixed' mean?

A **root fixed post** is a post designed with an extended section below finished ground level. A hole or foundation is excavated, the lower section of the post is positioned in the ground, and the post is normally secured within a concrete foundation. Once the concrete has cured, the post forms a permanent installation.

In simple terms: root fixed means the post is installed *into* the ground rather than being bolted onto the surface.

Where are root fixed posts used?

Root fixing is commonly used for permanent external products such as **height restriction barriers, manual swing gates, fixed bollards, protective posts and some vehicle barrier systems**. It is particularly useful where a secure, permanent installation is required and the ground can be excavated to form suitable foundations.

How does a root fixed post work?

The post is manufactured longer than its visible height because part of the post is intended to remain below ground. This buried section is often referred to as the **root**. The concrete foundation surrounds and supports the root, helping transfer forces from the post into the surrounding foundation and ground.

Root fixed vs bolt down

Root Fixed	Bolt Down / Surface Fixed
Post extends below ground level	Post normally has a base plate
Set into an excavated concrete foundation	Fixed to suitable concrete using anchors
Permanent installation	Can be easier to remove or replace
Requires excavation	Requires a suitable existing concrete surface
No exposed base plate is normally required	Base plate and fixings remain at surface level

Why choose root fixed posts?

Root fixed posts are often chosen where the product is intended to remain permanently in position. Because the post is embedded into a concrete foundation, the installation does not rely solely on surface anchor bolts. They are also useful where there is no existing concrete slab suitable for a bolt-down base plate.

Installation considerations

The required **foundation size and root depth are not universal**. They depend on the product, post size, overall height, opening width, ground conditions, anticipated loading, location and the manufacturer's installation requirements. Before excavation, the area should also be checked for underground services.

Important - root fixed does not automatically mean crash rated

A product being root fixed describes the **method of installation**. It does not, by itself, mean that the post, gate, bollard or barrier has been crash tested or certified to withstand a particular vehicle impact. Any impact or security rating should only be stated where the complete product and foundation system has the relevant test evidence or certification.

Short wording for product pages

Root Fixed: The posts are manufactured with an extended section designed to be installed below ground level and secured into suitable concrete foundations, providing a permanent fixing without the need for a surface-mounted base plate.

Alternative FAQ wording

What does root fixed mean?

Root fixed means that part of the post is installed below ground level and secured within a concrete foundation. Unlike a bolt-down post, which is fixed to an existing concrete surface using a base plate and anchor bolts, a root fixed post requires excavation and is intended as a permanent installation.

Reference note

This guide gives a general explanation of root fixed posts and can be used as supporting website information. Always refer to the individual product specification or installation instructions for the correct below-ground depth, foundation dimensions and fixing requirements.