THE BLAST SHOP

Solid Peg and Tube Fixing Instructions

SUPPLIERS OF SPECIALIST SANDBLAST EQUIPMENT TO THE MEMORIAL INDUSTRY.

Using the Solid Peg and Tube with Traditional Fixing Methods

Fixing Headstone and Base on a Reinforced Concrete Flag or Single Grave Space Poured Concrete Foundation

(1) Bore hole through base and foundation under the plate on the centre line of the base side to side. For a 25mm peg and tube the recommended diameter of the holes is 28 mm; for a 27mm peg and tube the recommended diameter of the holes is 30 mm; for a 37mm peg and tube the diameter of the holes must not be greater than 40 mm.
(2) Cut a slot in the foundation either side of the hole to accommodate the wings on the tube.
(3) Level the foundation and stabilise it by driving the stabilising tube vertically through the hole in the foundation, ensuring that the wings line up with and fit flush in the slots.
(4) Cement the base to the foundation and drop the peg through the base into the anchoring tube. Use a mandrill or other similar object to line up the holes in the memorial base and foundation. If the memorial could subsequently be removed keep the pin and tube free of any cement.
(5) Fix the plate to base as normal. If the memorial could subsequently be removed cover the base hole with PVC tape before applying cement.

Fixing Headstone and Base plus an Additional Plinth

(1) As (1) above but also drill a hole through the plinth.
(2) Cut a slot in the plinth either side of the hole to accommodate the wings on the tube.
(3) Cement the plinth to the foundation and stabilise both by driving the stabilising tube vertically through the holes in the foundation and plinth, ensuring that the wings line up with and fit flush in the slots.
(4) Continue as from (4) above.

Fixing on a Poured Concrete Raft or Beam Foundation

(1) As (1) above but drill the foundation to a depth of 125 mm to take the short pin-tube.
(2) Continue as from (2) above.

Using the Peg and Tube with the Bolting System

(1) - (3) As above.
(4) Place the pin in the stabilising tube. If the memorial is pre-bolted, place the base onto skids and ease it down over the pin. Alternatively wrap the pin with PVC tape until it fits snugly in the base hole and ease the pin into the tube (using this method aligning the pin and tube is easier as you are not working blind). Cement down.
If the memorial is not pre-bolted, place the base, on skids, over the pin. Drop the headpiece onto the base and tighten. Ease the bolted memorial down and cement.

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Partners : M. Critchley M.Sc.; C. Critchley; Mrs. G. Critchley. Hours of Business : 09.00 – 17.00 Monday - Friday

THE BLAST SHOP

Memorial Safety System Selector
Solid Peg & Tube

SUPPLIERS OF SPECIALIST SANDBLAST EQUIPMENT TO THE MEMORIAL INDUSTRY.

Use the following table to choose the appropriate system for safely anchoring your memorials

Single Grave Foundation (poured or flag foundation)

Memorial Height	Up to 3ft	Up to 4ft	Up to 5ft	Remedial work up to 3ft
Lockdown System and Stabilising Tube	Approved (see note 1)	Approved (see note 2)		
Blast Shop Solid Peg and Tube (short tube)	25.0 mm 27.0 mm 37.0 mm	38.0 mm	2 x 38.0 mm	26.9 mm (see note 3)

Multiple Grave Foundation (poured or raft foundation)

Memorial Height	Up to 3ft	Up to 4ft	Up to 5ft	Remedial work up to 3ft
Lockdown System	Approved	Approved		
Blast Shop Solid Peg and Tube (short tube)	25.0 mm 27.0 mm 37.0 mm	38.0 mm	2 x 38.0 mm	26.9 mm (see note 3)

Notes:

1. Any diameter tube can be used to stabilise the foundation for the lockdown solution up to 3ft (26.9mm, 28.6mm, 38mm). No peg is required.
2. A 38mm tube must be used to stabilise the foundation for 3-4 ft high memorials. No peg is required.

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Peg and Tube Anchor System

Single tube anchor system accredited for the safe installation marble and granite memorials up to 4 feet high. For memorials over 4 feet two tubes should be used.

The system comprises a stainless steel tube which is driven into the ground through the memorial foundation and any sub-base. A short, removable stainless steel peg inserted into both the anchoring tube and the memorial base completes the anchor system.

Features

Tubular construction	❖ Easier to drive into the ground than a solid rod system as the tube cores the ground instead of compacting it or pushing it aside. Less physical effort required and quicker to drive into the ground. ❖ If necessary, a mandrill or percussion drill can be driven down the centre of the tube to break up any stubborn obstruction. ❖ Less chance of the tube being deflected out of the vertical during the driving process than with a solid rod system.
Choice of tube diameters	❖ Available in three different tube diameters for use with the most popular 28, 30 and 40 mm 'NAMM' anchoring holes.
Choice of tube lengths	❖ Standard tube length 600mm ❖ Shorter tubes available for use on poured concrete beam or raft foundations ❖ Longer tube option for soft or sandy ground
Multiple tube option	❖ In extremely soft or sandy conditions additional tubes can be used to stabilise the foundation. Only one of these tubes needs to be connected to the base with a peg.
Removable peg	❖ If the memorial is removed from the cemetery for further work the peg can be removed ensuring that there is nothing left protruding out of the ground to create a trip hazard. ❖ If cement or adhesive accidentally gets into the 'NAMM' hole in the base during the fixing process the peg will still pull out of the tube easily to release the memorial if it has to subsequently be removed.
Integral Depth Stop	❖ The depth stop wings at the top of the tube are formed from part of the tube. They cannot accidentally break or slip causing the anchor system to under-perform or fail completely.
Optional 'knocking in' peg	❖ To avoid problems of the head of the anchor being distorted during the driving process use a 'knocking in' peg - a standard peg kept for driving.
Choice of fixing methods	❖ Peg can be inserted into the tube and the base dropped over the top of the peg. ❖ Base can be fixed as normal and the peg dropped though the base – easier for one-man fixing. ❖ If using plate-to-base bolting the peg can be resined into the base and the memorial lowered down on skids – easier for visually aligning the anchor with the hole if the memorial has been pre-assembled or is being refixed as a complete unit.
Accredited as an all-in-one safety dowel and anchor system	❖ The only ground anchor system accredited by NAMM for use in remedial work as both an anchor and safety dowel. ❖ Only one hole to drill – not three. ❖ No additional dowels to buy. ❖ Saves time; saves materials, saves money.

Fixing a Memorial with a Peg and Tube

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Fixing a Memorial with a Peg and Tube

Preparation Prior to Installation.

Pre-drill a ground anchor hole in the centre of the memorial base under the headpiece If a sub-base and/or foundation flag are to be used, drill corresponding ground anchor holes in these as well. See Table A for the relevant ground anchor hole and tube sizes.

Maximum Hole Diameter	Tube Diameter
28.0 mm	26.9 mm
30.0 mm	28.6 mm
40.0 mm	38.0 mm

Table A

Preparing the Foundation.

If using a foundation flag, cut out the turf to the depth of the foundation flag and level the flag. If fixing on a pre-installed poured concrete beam or raft foundation, drill a hole in the foundation for the anchoring tube so that when the tube is inserted in the hole the wings at the top of the tube are flush with the surface of the foundation.

Installation

Drive the anchoring tube vertically through the foundation with a hammer. We suggest using a separate peg as a 'knocking in' peg to avoid distorting either the tube or the peg during the driving process. Ensure that the wings of the tube are flush with the upper surface of the foundation. If necessary, cut recesses in the foundation to accommodate the wings.

If fixing the base and plate separately either

(1) insert the peg into the top of the anchoring tube and lower the base over the peg using skids or wedges to ease it down; or

(2) fix the base to the flag in the normal manner making sure the anchoring hole in the base aligns with the anchoring tube (using a mandrill will help) and drop the peg through the base into the anchoring tube.

Complete the installation of the memorial as normal.

If installing a pre-assembled memorial such as one with the plate and base already bolted together, resin the peg into the NAMM hole in the base, drop the memorial onto skids placed on the foundation and ease down into place using skids or wedges. You will find it easier and safer to position the peg over the tube than to position the NAMM hole in the memorial base over the protruding peg in the anchoring tube.

Sub-Bases

If there is a sub-base between the foundation and the memorial base either

(1) drive the anchoring tube through the sub-base and foundation, making sure there is a minimum 575mm of tube length below ground level, then fix as above; or

(2) use an extra-long peg which extends through the sub-base and 70mm into the memorial base.

Remedial Work

The 26.9mm system is accredited for use as an all-in-one safety dowel and anchoring system for remedial work. Drill a hole through the base 75mm into the plate. Wrap tape over the head of the peg and resin the peg into the base and headpiece. Follow installation procedures for a pre-assembled memorial.

NAMM Register of Accredited Ground Anchors

Ground anchors classed for use on General Stones can be used on materials as hard or harder than Marble and are tested using a marble base.

GS General Stones are classed as all materials as hard or harder than Marble.

GO Ground Anchors tested on a granite base are accredited for use on granite only.

For guidance: NAMM Accreditation procedure conforms to BS8415-2018 and the test media conforms to BS 5930-2015 categorisation as being "*Loose; Fairly easy to excavate with a spade".* It is the responsibility of the mason to initially assess the ground conditions prior to installing a NAMM Accredited ground anchor. If there is any doubt consult with the Burial Authority to confirm ground type and consult with the Ground Anchor Manufacturer to ensure the correct product and fixing method is being applied.

It is most important to read and follow the detailed fixing instructions provided by the manufacturers/suppliers. The accredited efficiency of the ground anchor may be compromised if the fitting instructions are not followed, particularly in relation to hole sizes and depth stops (height/protrusion of fixing above foundation surface, which is inserted into memorial base). Manufacturers contact details are provided on the anchor listing.

Nationally established methods of fixing memorials have been derived from NAMM product testing first incorporated in the NAMM Code Of Working Practice and subsequently laid down in BS8415. Ground anchors are tested in accordance with the latest BS8415-2018 guidance under the supervision of an Independent Structural Engineer and witnessed by representatives of NAMM. Accreditation has been given on the understanding that no change has (or will be made) to the technical specification of the submitted tested system or any deviation from the fixing procedure to that used at the time of testing without first informing NAMM Technical committee. Product conformity and liability is the responsibility of the manufacturer/supplier.

All fixing systems bars, tubes, dowels, pins, nuts, bolts & washers etc must be of stainless steel of not less than Grade A302. All accredited fixing methods must be followed in accordance with instructions and fixings must not be modified.

Any depth stop shall be recessed into one of the elements that the system joins. These depth stops must not be moved from the manufacturers specified position.

All Manufacturers and suppliers of NAMM Accredited Ground Anchors must provide technical support and guidance along with clear written fitting instructions regarding the appropriate usage of their NAMM Accredited products

All NAMM Accredited Ground Anchors must be fitted in accordance with manufacturer's instructions by qualified memorial fixers.

NAMM Accredited ground anchors tested in compliance with BS8415-2018
GS = General Stones = as hard or harder than marble.
Pull Height = Maximum height of memorial for accredited usage measured from ground level.
Anchors were accredited using foundation size as listed

Manufacturer & GA Type	Pull Height	Memorial Base	Foundation
BLAST SHOP ***Tel 0161 3516545*** Info@theblastshop.co.uk www.theblastshop.co.uk			
Blast Shop PT 25 Solid Peg + 600mm Tube x 1	GS **40"**(1115 mm)	Single base	42"x18"x3"
Blast Shop PT 25 Solid Peg + 600mm Tube x 1	GS **36"** (915mm)	Single base	36"x15"x3"
Blast Shop PT 27 Solid Peg + 600mm tube x 1	GS **36"** (915mm)	Single base	36"x15"x3"
Blast Shop PT 38 Hollow Peg + 600mm tube x 1	GS **48"**(1220mm)	Single base	36"x15"x3"
Blast Shop LD & Plate 3"& 5" +600mm tube x 1	GS **36"** (915mm)	Single base	36"x15"x3"
Blast Shop LD & Expansion Bolt + 600mm tube x 1	GS **36"** (915mm)	Single base	36"x15"x3"
When fixing or re fixing a memorial, ground anchors used **must** comply with current listing.			