

Torc Ground Anchor – Series III Mega & Maxi

Fitting Instructions for Blockwork Walls

Copyright © 2023 Pragmasis Limited
(29-Aug-23)

Important Requirements

Caution: Be careful that you do not drop the anchor on your foot or allow the shackle to fall on a finger!

Any security installation is only as strong as its weakest link:

The Torc Ground Anchor must be used in conjunction with an appropriately fitted Sold Secure-approved lock and chain.

The integrity of the anchor is dependent upon the quality of the surface to which it is fitted. Concrete is generally stronger than brick, and brick is generally stronger than block. This fitting kit extends the normal mounting *footprint* to compensate for lower-strength walls such as concrete blocks.

The Torc Ground Anchor should **not** be fitted to a block wall or to a brick wall within 2.0 metres (6 feet) of its top edge – do not fit it to a low garden wall! Similarly, you should choose a location that is at least 0.3 metres (1 foot) from the nearest end of the wall – don't fit it close to an external corner. The wall fitting kit includes expanding bolts but these are liable to split the blocks apart if there is insufficient weight above the fixing or if it is too close to the edge. If the wall can be knocked over you have no security!

The minimum wall thickness recommended is 100mm. You should also avoid walls with a plaster/plasterboard covering – this product is designed to be fixed directly to the blocks. Coverings over the blocks create a vulnerability that could be exploited by a criminal.

Separate fitting kits are available for installation on concrete floors and other situations.

If you are unsure, please contact your supplier for advice.

What Tools Will I Need?

The fitting kit includes all parts that are required. The only tools you will require for wall mounting are:

- An electric hammer drill with at least a 12mm chuck capacity. The fixings require holes to be drilled 16mm in diameter, so a powerful drill or ideally an SDS+ drill are recommended
- A medium sized hammer (a 4lb/2kg club hammer is fine)
- Eye protection – goggles or a visor should be worn
- A pencil or felt pen or similar for marking holes to drill
- Optionally, construction adhesive such as *PinkGrip*, *Liquid Nails*, *Serious Stuff* or similar
- Optionally, a torque wrench and ¼" AF socket

How Long Should I Allow to Fit an Anchor to a Block Wall?

30-60 minutes as a guideline. Be careful and don't rush.

What Parts Should be in a Block Wall Fitting Kit?

The Torc anchor brick wall fitting kit contains:

- Extended mounting plate with 8 fixing holes
- M10 x 70mm long high tensile (10.9-rated) hex socket conical button-head bolts, fully threaded (outer fixings) (qty. 4)
- M10 x 70mm long high tensile (10.9-rated) hex socket countersunk-head bolts, fully threaded (inner fixings, through the anchor) (qty. 4)
- M10 shield anchors (qty. 8)
- M10 penny washers (for the outer fixings, only) (qty. 4)
- Hardened steel hammer-in plugs (qty. 4) (Torc III Mega and Maxi)
- Flat steel washers (qty. 4) (Torc III Mega and Maxi)
- Hardened steel ball bearings to suit bolts (qty. 8)
- 6mm hex wrench (*Allen* key)
- 6mm AF x ¼" Hex Driver bit to suit bolts
- M8 x 50mm hex head bolt (to be used as a punch)
- Length of flexible PVC hose
- Masonry hammer drill bit 16mm straight shank (SDS-Plus shank also available)
- These instructions

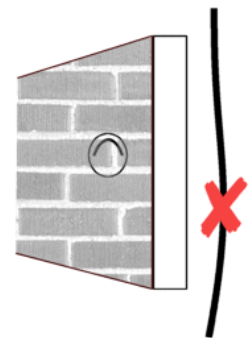
How to Fit a Torc Ground Anchor to a Block Wall

The Torc ground anchor is designed to be fitted by any competent DIY enthusiast.

You should read through these instructions in their entirety before starting to fit an anchor. If you are not confident of your ability, you should ask an experienced person or professional builder to help.

In the following instructions, the term *bike* is used to mean any valuable item that you wish to secure with your ground anchor.

- 1. Check the contents of the Fitting Kit:** Ensure the fitting kit is complete (the items are listed above). Contact your supplier if there are any parts missing or damaged.
- 2. Choose a good location:** Be careful to choose an appropriate location for fitting your anchor, clear of any pipes, cables etc (the use of a metal detector or other pipe/cable detector is recommended if you are unsure). The anchor is designed for permanent installation so take time to ensure the chosen position will allow you to secure your motorbike with the chain etc that you have chosen. Putting the anchor near a corner or other location such that the bike restricts access to the anchor can make it a lot harder for a criminal to attack, as can keeping chains and locks off the floor. We recommend that you lean the anchor against the wall and check that you can get the bike into position and then ensure you can actually fit the chain & lock. Time spent now checking the intended location is much better than realising later that you can't get the bike within the range of your chain!



Remember that any anchor is only as good as the substrate it is fitted to.

- 3. Mark the holes to drill:** The fixing holes are different for the Torc Mega and Torc Maxi anchors. They are positioned at the corners of a rectangle measuring as follows:

110mm x 65mm (for the Torc Mega), or
95mm x 55mm (for the Torc Maxi), or

100mm x 60mm (for the Torc Series II anchors).

Using the 8-hole extended mounting plate as a pattern, choose the precise combination of hole positions relative to the mortar joints in the brickwork. The short end of a block is usually strong and solid. You can also put one or more holes into mortar joints between the blocks. Try to choose a position and orientation of the eight holes so that the combination is as solid as possible. Then *carefully* mark the holes to drill using a pencil or felt pen, for example.

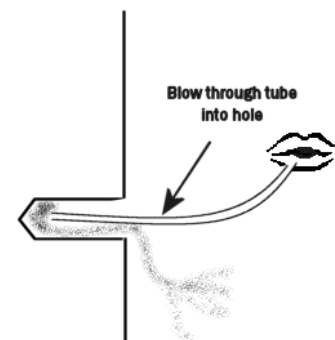
Check carefully that all eight holes are marked at the centres of the bolt holes in the 8-hole mounting plate. Re-check the four inner holes with the base of the Torc anchor itself, as some metal plates have universal holes to suit multiple anchor designs. The holes need to suit the specific anchor you are using! Accuracy is important here.

4. Move the plate out of the way and then, using eye protection, good ventilation and a hammer drill, carefully **drill the holes** to 70mm depth. Be careful to avoid the drill drifting sideways as you drill and keep it perpendicular to the wall. The drill bit supplied is marked with tape at the right depth – the tape should just touch the surface of the wall as you finish drilling each hole – **don't drill too deep or you may burst through the other side of the wall!** Take care not to breathe the dust. Using a vacuum cleaner and crevice tool near the drill may help to suck up the dust during the drilling process – take care however you do it!

If you are drilling extremely tough blocks or if the drill is difficult to keep in position, you may find it helps to drill a pilot hole of e.g. 8mm diameter first, if you have a suitable drill bit available (only a 16mm drill bit is included in the kit), and then drill the final size holes.

5. **Clean dust from inside the holes:** It is very important that the holes are as clean as possible if the anchor is to achieve maximum strength. The drill will often leave a lot of dust at the bottom of the hole so it is a good idea to spin the drill up and down to *screw* dust out of each hole.

Then, still wearing eye protection and taking care to avoid breathing the dust, use the plastic tube provided to blow any remaining dust out of each hole. Place one end of the tube in your mouth and, whilst blowing, move the other end of the tube up and down in each hole. Keep doing this until the holes are clean and no more dust blows out. This stage is easier if you have a source of compressed air or a vacuum cleaner to suck the dust up (a crevice tool and the plastic tube can work well), but take care to protect your eyes and avoid breathing the dust, however you clean the holes.



6. **Check that the holes are clean and deep enough:** Slide one of the bolts, without the *shield* (i.e. just the bare bolt without the expanding sleeve), into each hole in turn and check that it will sit with the underside of the head resting on the surrounding wall. It is surprising how easily compacted dust can remain at the bottom of the holes – if the holes are not clear or simply not deep enough, repeat the relevant steps above to achieve the correct depth and holes clear of dust.
7. **Mount the anchor and shackle on the mounting plate:** Taking care with the **growing weight of the assembly**, place the D-shaped shackle against the centre of the mounting plate and put the anchor in position over it so that the shackle is held in position by the cut-outs in the anchor base plate and the central four bolt holes line up with the mounting plate. Carefully, put the countersunk-headed bolts through

the anchor, through the central four holes in the mounting plate, and loosely screw a *shield* (i.e. an expanding sleeve) onto each of them, behind the mounting plate. This secures the anchor and shackle, loosely, to the mounting plate. Do all of this away from the wall.

**** DO NOT FORGET TO PUT THE SHACKLE AGAINST THE PLATE FIRST!!**

8. Prepare the outer fixings: Now, put a penny washer onto each of the special conical-headed bolts and put it through one of the outer four holes in the mounting plate. Loosely, screw another *shield* onto each of them as well. Again, do this away from the wall.

You should now have the anchor, the shackle, and all eight bolts and shields held together as a loose assembly, away from the wall.

9. Optionally, add some adhesive. If you wish to increase the grip of the shields on the wall, you can squirt a little construction adhesive into the drilled holes. (Check hole alignment first, as below.) Don't apply too much or it will obstruct the shields and make a mess! Follow the instructions on the product and beware getting it on your hands.

10. Mount the entire assembly onto the wall: Again, taking care with the weight of the assembly, carefully slide all eight of the shield assemblies into the drilled holes in the wall. You may need to jiggle the anchor and fixings around to get all of the shields to sit home in their holes.

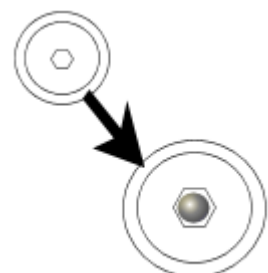
Ensure that each bolt is fully home against its hole in the metalwork and the anchor mounting plate is snug against the wall. Small alignment errors can be corrected by re-drilling; greater errors need you to start again or seek advice from your supplier.

11. Tighten the bolts: Using the L-shaped hex wrench (*Allen key*) provided, tighten all eight bolts evenly until they are all tight. Do this steadily at first across all of the bolts as the shields might spin round rather than tightening. If that happens, loosen any of the bolts that you have already tightened so that you can remove the assembly from the wall, and tighten the shield that was spinning so that it is a little firmer against the metal plate.

There is no need to use any extra leverage than the arm of the hex wrench, but the bolts do need to be tight. If you have access to a torque wrench and ¼" AF socket, you can use the small hex driver bit in each bolt head to tighten the bolts to 40Nm/30lb-ft.

12. Check all eight bolts are fully home: Once you have tightened all of the bolts, check that they are all fully home and in contact with the metalwork. The ground anchor should now be held tightly against the mounting plate and the mounting plate should be held tightly against the wall.

13. Insert the ball bearings: Hammer one of the ball bearings supplied into the hexagonal head of each bolt. You may find the extra M8 x 50mm bolt is useful as a *punch* to reach the bolt heads – the end of the bolt has a slight dimple that will locate on the ball bearing. The ball bearings are a very tight fit so it will take a few hammer blows to drive them into the bolt heads. Be careful not to hit your fingers! ☺ It can be a good idea to re-check the tightness of each bolt just before you



insert its ball bearing, just in case the hammering on previous bolts has caused any loosening of the grip. Once all eight fixings are finished, give the anchor a good tug by hand just to double-check the firmness of the fixing. Contact your supplier if you have any problems.

14. For the Series III Mega and Maxi anchors: These also have hammer-in steel plugs and extra washers to increase the security even further. Place one of the flat washers over one of the ball bearings – the face of the washer will be slightly higher than the top of the ball bearing if it is in position correctly - and then look at the edge of one of the hammer-in steel plugs. You should see that the edge is very slightly tapered: The plug is wider on the side that has a slightly curved face. This slightly curved face is the top and the plug should be hammered into position that way up, with the curved face uppermost. Using the M8 x 50mm bolt, but this time upside down, will help. The taper on the edge of the plug helps it to locate and helps to get it hammered into position. The plug should hammer down until it sits on the flat washer that you placed over the ball bearing. The plug is a fairly tight fit, but this stage is not too difficult: The tapered edge combined with the washer is a *Pragmasis* innovation that helps a lot with this 😊

Repeat this step of washer and hammer-in plug on all 4 fixings.



15. The installation is complete. Well done 😊

Using a Torc Ground Anchor

A properly installed anchor should give you many years of trouble-free service.

Remember that you must use an appropriately fitted Sold Secure-approved lock and chain to be confident in your security provisions.

No maintenance is normally required. Do not use any abrasives for cleaning.

(PTO)

Block Wall Fixing Queries

I only have a Plastered Wall Available?

Although longer bolts would compensate for the thickness of the plaster, this is not recommended as a criminal could attack the plaster and thereby gain access to the bolts. The best solution is to cut away the plaster so that the bare blocks are exposed and to then mount the anchor directly on them. If this is not practical, the Block Wall fitting kit is likely to be OK anyway as it fits over such a large area and the extended mounting plate protects the bolts for the innermost four fixings, for the anchor itself.

What about Cavity Walls?

The anchor is fitted to a single skin of brickwork so its fixings do not bridge the cavity and should not cause problems with damp etc.

What about 9-inch Solid Walls?

Excellent! Providing you are not fitting the anchor within 2.0 metres (6 feet) of its top edge or within 30cm (1 foot) of the end of the wall, a thick solid wall is ideal.

I can't get the bolts to tighten?

If you are struggling to tighten the bolts it may be because the blocks are splitting. If so, you should try again with a wall that is in better condition. If there is no alternative, a construction adhesive may help the shields to grip in the holes. Follow the instructions on the product.

My blocks appear very soft or crumbly?

Blocks that are in poor condition are not suitable for fitting a ground anchor. You should find an alternative location.