

## abba S1 Ground Anchor Installation Instructions



**Essential Tools required:** Hammer Drill, Hammer & Safety goggles.

**Additional non Essential items:** Electrical tape, masonry drill bit for pilot holes (around 6-8mm), vacuum cleaner.

**Notes before installation.** The hardened drill bit supplied combined with a good quality home DIY hammer drill should be all that's required to install the anchor into the average home garage floor base. However with certain types of concrete, especially those with a high stone percentage, you may find that the drill you are using or the drill bit supplied are not suitable and a more "industrial" version (SDS hammer drill for example) are required.

**Suitability:** The resin capsules supplied provide the strongest form of permanent fixing when installed correctly into a solid concrete floor. Please ensure your concrete base is at least 10cm+ thick and is of good quality. If you find that the concrete crumbles when drilling and does not give a consistent round hole this may cause the resin not to bond properly giving a weaker end result.

**Location:** The ground anchor can be installed in virtually any location. Another advantage of the resin capsules is that they enable you to install the anchor much closer to the edge of the concrete than with traditional expanding type bolts. Select your desired position and check that the area is flat and relatively smooth.

**Installation step 1:** Once you have selected the location to install the anchor push down on the stainless steel base plate with the shackle located underneath and ensure the shackle can rotate freely in each direction. If you feel some resistance you might find that there is a "high point" where the shackle is trying to pivot. If this is the case change your location to a flatter area. Next pre mark the drill positions through the holes with a pencil or marker pen.

**Installation step 2:** We recommend (if available) you use a smaller size masonry drill bit to pre drill a pilot hole for all four holes prior to finishing off with the supplied drill bit. It is important that both the pilot hole and finished hole diameter are drilled to a depth of 85mm. Tip: Measure 85mm down from the tip of the drill bit shank and wrap a piece of electrical tape around the shank at this depth. This will help you identify the correct depth when drilling.

**Installation step 3:** After all 4 holes have been drilled it is **very important** that the hole is fully cleaned and that all remaining dust is removed. Failure to remove the dust will cause a weaker bond between the resin and the concrete. Use the plastic tube provided to blow all the dust out of each hole. (Note: Remember to use eye protection during this step!) Tip: You can also use this tube with a vacuum cleaner to suck the dust out of the hole. After all 4 holes are fully cleaned insert one resin capsule into each hole with the rounded (domed) end facing upwards.

**Installation step 4:** Locate the shackle and base plate into position over the holes. Locate the hex key bit provided in your drill and place one of the stainless steel bolts in the first hole, now push pressure down on your drill whilst spinning in the clockwise direction at a medium speed to break the glass capsule and mix the resin fully. (Note: The bolt will not tighten fully like a normal bolt and will continue to spin in the resin when fully home) Repeat these steps for the remaining three holes. Ensure all four bolts are screwed fully down and the anchor is sitting flat to the floor. Lightly check that the shackle rotates freely.

Drying time for the resin depends on temperature and humidity. To be sure we advise you wait a minimum of 10 hours before completing the final step (Step 5)

**Installation step 5:** Once you have allowed time for the resin to fully harden, the anti-attack ball bearings can then be punched into the heads of the hex key bolts. Position a bearing on top of the bolt hex head and use the hex key supplied as a punch to tap the bearing into position with a hammer. You have now successfully installed the ground anchor.

**If in doubt, ask us! Email: [info@abbastands.co.uk](mailto:info@abbastands.co.uk) Tel: 01245 322331**