

This instruction is a guide for the installation and anchoring of the Alpha GFRC benches.

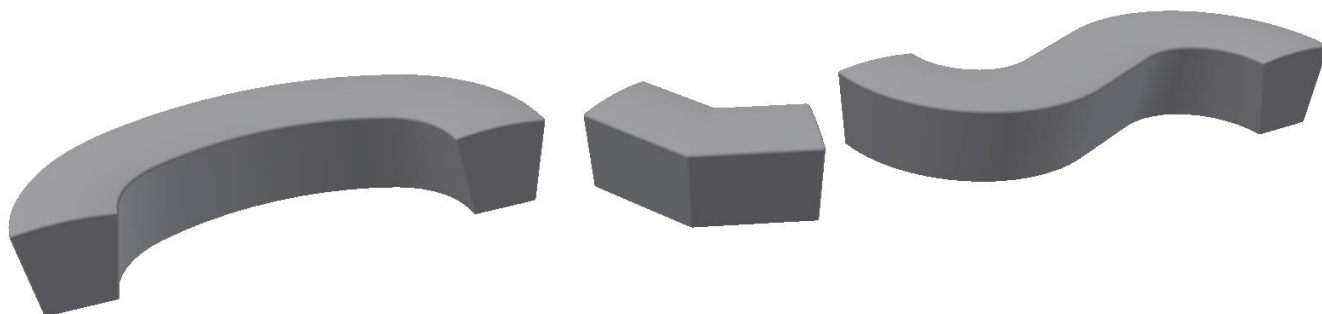
PARTS/HARDWARE LIST *Included*

GFRC Bench
Concealed Anchor Brackets
3/8-16 x 1" SST Hex Bolt
3/8" SST Split Lock Washer
3/8-16 SST Hex Nut

TOOLS REQUIRED *Not Included*

9/16" Socket or Box Wrench
Lifting Straps
Epoxy (or chemical anchor)

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GFRC (glass fiber reinforced concrete) Alpha Benches

The Alpha benches utilize a “concealed” mount technique which maintains the aesthetic lines of the bench while providing a method to secure the benches to the surface they rest upon. The concealed anchor does require planning and some preparation for anchoring.

The concealed mount requires placing the bracket onto the underside of the bench, adding any anchor hardware, preparing the substrate to accept the anchor, and lowering the bench into place. The anchor will vary depending on your install and you should verify with the project/structural engineer which method is to be used. The Alpha benches and anchor bracket allows the option of an epoxy or chemical anchor for a 1/2" coarse thread bolt (attached to the anchor bracket with a hex nut) or a 1/2" coarse threaded rod or rebar that can be captured by the bracket.

Anchor Installation Instructions

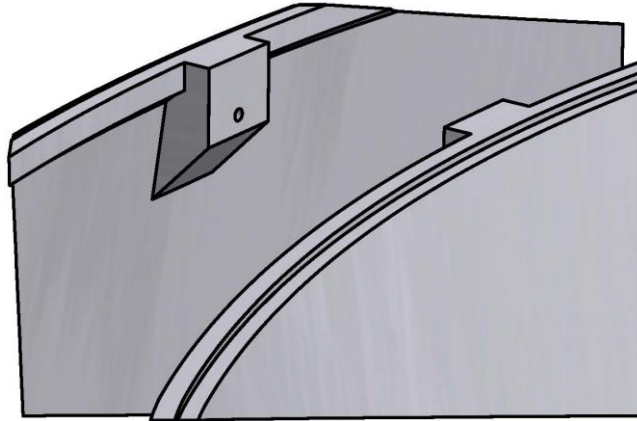


Fig. a) Anchor bracket mounting points (underneath)

STEP 1

The concealed bracket will already be attached to the underside of the bench with 3/8"-16 x 3/4" SST hex bolts and split lock washers. The flat face of the bracket (longest portion of the bracket with a single hole) should be flush with the lowest surface of the bench. The anchor bolts will not in place.

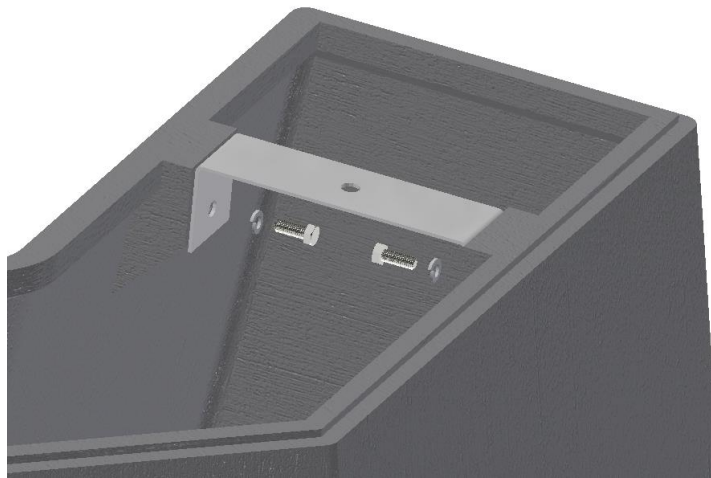
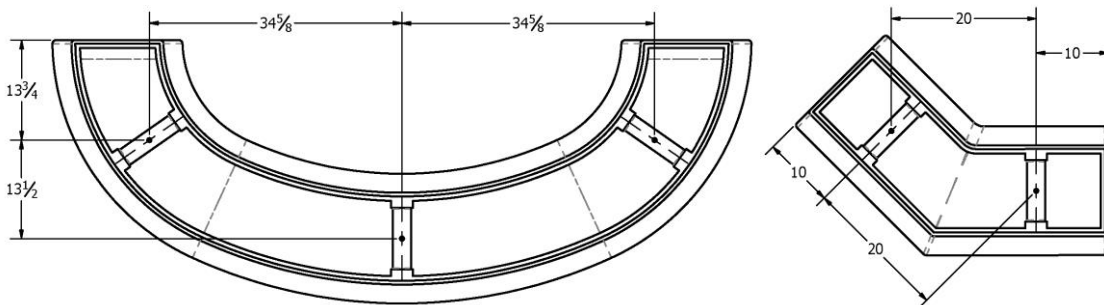


Fig. b) Anchor bracket attachment to mounting pad of bench

STEP 2

With the brackets mounted, as noted above, verify the measurements for placement of embedded anchors.



Anchor Installation Instructions

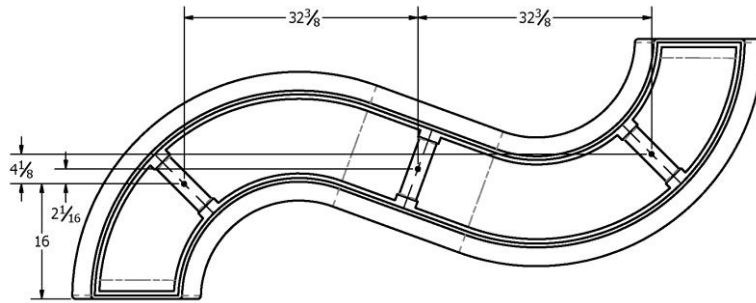


Fig. c) Multi-Point anchorage (bottom view)

STEP 3

Each bench in the Alpha collection is unique and so the anchor points for each bench will be different. Consult the submittal drawing for an anchor point detail that shows each anchor point for the substrate relative to the bench outline. The dimensions shown above are approximate. Verify measurements and placement of anchors on each completed bench and bracket assembly before drilling or embedding any anchor hardware.

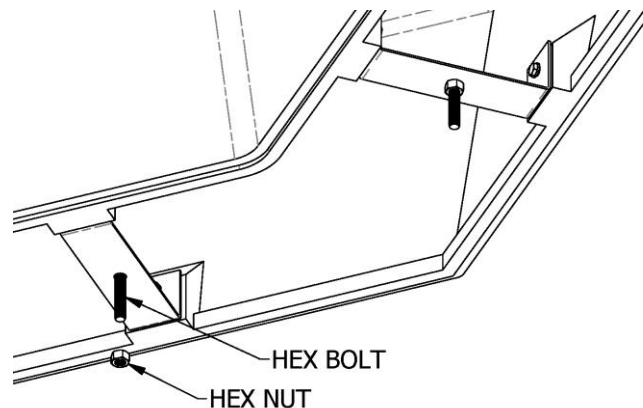


Fig. d) 1/2"-13 SST Hex Bolt and 1/2"-13 SST Hex Nut for Chemical Anchor

If the anchor points have not already been placed, with the bench raised (safety strapping for moving/lifting), mark the location of the anchor holes or bolts (if those have already been attached). Another method would be to create a cardboard template with the overall shape of the bench, mark, and then cut out holes to locate the anchor points. The template can then be used to mark the anchor points of the bench if the bench is used multiple times.

STEP 4

With the locations marked, either drill a hole approx.. 1 to 1-1/2" in diameter if for an epoxy or chemical anchor for the 1/2" bolt or place the 1/2" threaded rod or rebar per the anchor manufactures instruction. For the chemical or epoxy anchor, fill the holes and then lower the bench into place. If a protruding threaded rod is used, the bench can only be placed enough to allow a nut to be placed on the threads and threaded partially as there will be no access once the bench is completely lowered. The rebar should have a small bend to capture the anchor brackets. Both of these methods secure the bench, but allow some movement as they may not be fully engaged.