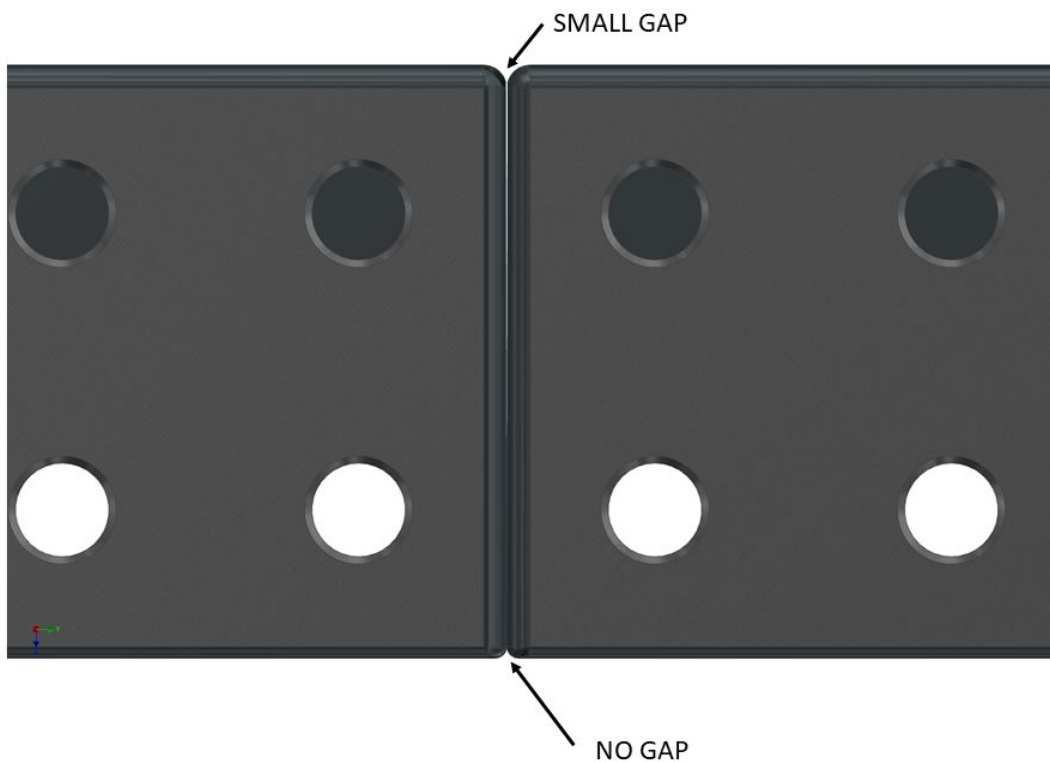


## Precision Bolt Kit Instructions

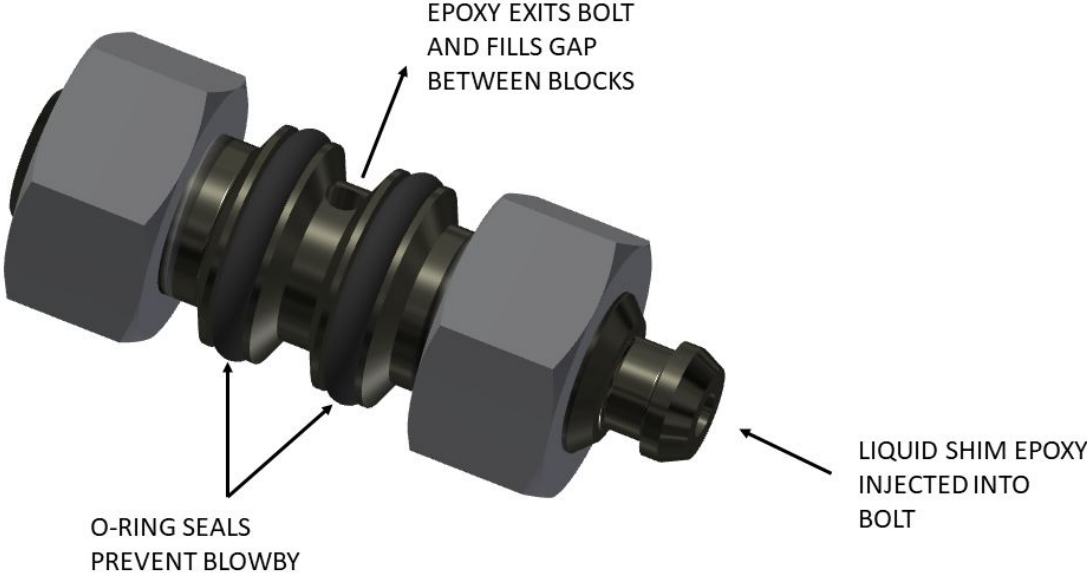
**ArcFlat** Weld Tables were specifically designed to be bolted together so that the size and configuration of your weld table is virtually limitless. Each 2'x3' weld block is guaranteed to be flat within .015". To ensure that the entire multi-block table surface is also as flat as possible, a special assembly and bolting process is required.

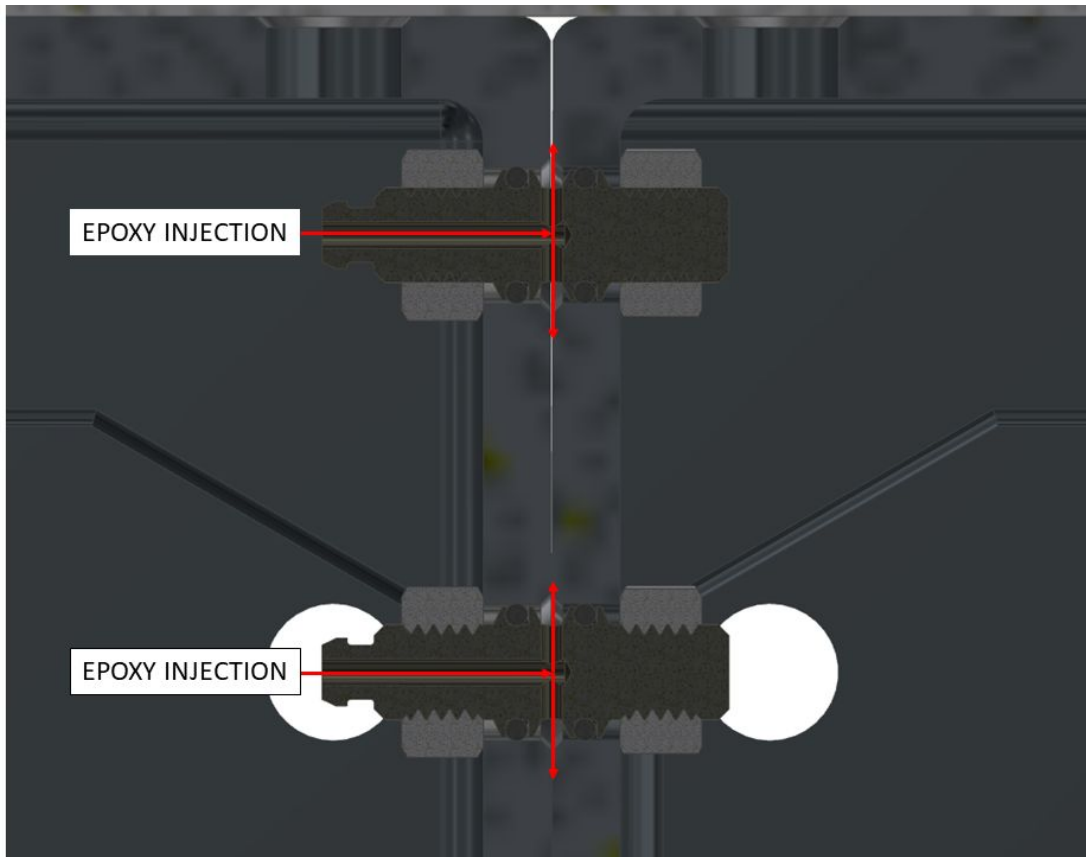
The edges of the weld block are machined perpendicular to the top surface within 0.1 degrees. While this is sufficient for jig work, simply bolting two blocks together will project a flatness error of up to 1/16" over the entire surface. The image below shows two blocks mated together that have edges that are 90.1 degrees with respect to the top surface. If these blocks were bolted together in this condition, the top surface would have a concavity and would no longer be perfectly flat.

**Please Note:** Both the Epoxy Syringe and Epoxy are not included in this kit. We strongly encourage you to use JB Weld KwikWeld Epoxy Syringe (part number 50176) and the JB Weld Static Mixer (part number 50099). Both of these products can be purchased at most auto parts stores.



Before the blocks are bolted together, this gap must be filled to ensure that the top surface flatness is maintained. That is accomplished using the ArcFlat liquid shim bolt kit. These special bolts make it possible to inject liquid shim material (two part epoxy resin) into the joint immediately surrounding the bolt. Once the material is cured, the bolts can then be torque without the gap closing up.





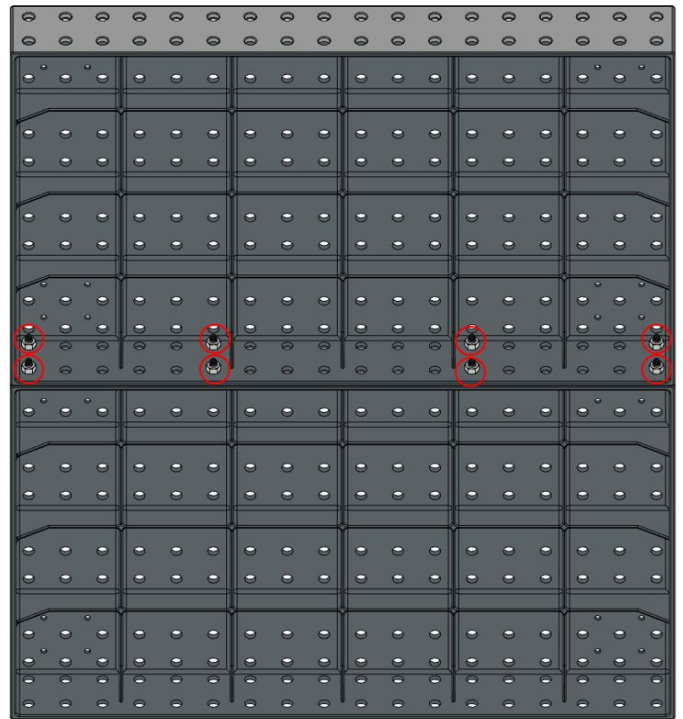
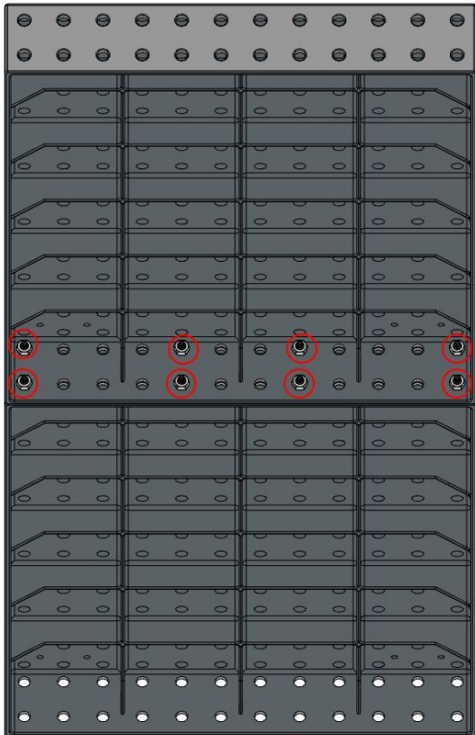
**STEP 1:**

Install the provided O-rings into the grooves of each bolt.

**STEP 2:**

Join the two weld blocks together by either mating the long edges or the short edges. Study the below diagrams to identify bolt placement based on the configuration of your weld blocks. Insert the bolts into the appropriate holes and secure with the hex nuts provided. Do not tighten the bolts; they should be left approximately  $\frac{1}{4}$  turn loose.

NOTE: The number of exposed threads should be equal on both sides to ensure that the cross-drilled hole is roughly centered in the joint.



**STEP 3:** Install the legs (or other support system if the leg kit is not being used) and set the table onto the floor. Since the bolts were left slightly loose, the table surface should be concave.

**STEP 4:** Clamp flat cold-rolled bar stock across the joint and clamp them down as shown. It is important to use bar stock that is stiff, flat, and as long as possible to ensure that the final table surface is as flat as possible.



**STEP 5:** Use a mallet to tap one of the weld blocks toward the other to close any gap that exists between them. Next, tap the weld blocks until the vertical edges on one of the sides are perfectly planar with no step.

Note: The overall width of the weld blocks can vary by approximately .015", therefore only one edge can be made perfectly flat with no step.

**STEP 6:** Snug down all of the bolts finger tight so that there is no slop.

**STEP 7:** Mix at least 25 mL of two part epoxy into a syringe (not included in this kit).

Note: For convenience, we strongly encourage you to use JB Weld KwikWeld Epoxy Syringe (part number 50176) and the JB Weld Static Mixer (part number 50099). Both of these products can be purchased at most auto parts stores.

**STEP 8:** Insert one end of the clear hose provided onto the end of the syringe nozzle.

**STEP 9:** Insert the other end of the clear hose onto the hose barb of one of the bolts. Slowly depress the syringe plunger with even pressure to inject the epoxy through the bolt and into the joint. Stop injection once epoxy squeeze-out can be seen in adjacent bolt holes or edges.

**STEP 10:** Repeat step 9 for the remaining bolts. Use a rag to wipe away any excess epoxy.

**STEP 11:** Allow epoxy to cure in accordance with the cure time provided by the epoxy manufacturer. Once fully cured, use 11/16" wrenches to tighten the hex nuts.

**Step 12:** Remove the clamps and bar stock.