Smoky Lake Maple Products™
SmokyLakeMaple.com

Bricking a Corsair Arch

CORSAIR SIZE: 2 feet wide x up to 6 feet long (Firebox is 2 feet wide x 2 feet long)

SMOKY LAKE BRICK KIT:

- 12 Thick Fire Bricks
- 10 Thin Fire Bricks
  (4 are packaged within the precuts box)
- 1 Box of Precut Bricks

YOU WILL NEED:

- Ceramic Blanket Insulation
  (Extra is available on SmokyLakeMaple.com)
- Pencil
- Measuring Tape
- Utility Knife
- Safety Equipment: Gloves, Safety Glasses
- Brick Batter
  (AKA High Temp Mortar. Optional but recommended. Available on SmokyLakeMaple.com.)

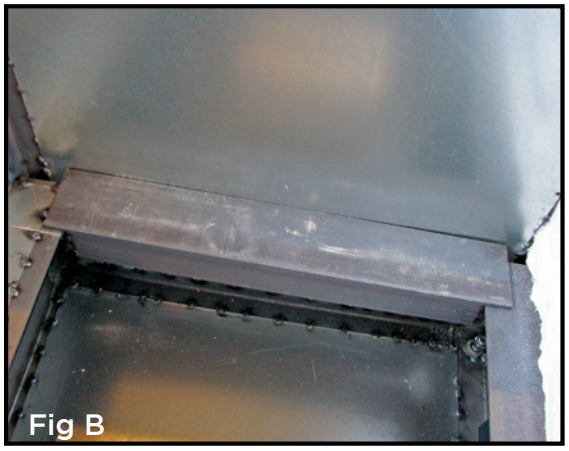
INSTRUCTIONS:

1. Line the inside left and the inside right sides of the arch with Ceramic Blanket. You will need to cut the Ceramic Blanket to shape with a utility knife so that it fits properly. It is best to measure the ceramic blanket slightly too big so that it packs firmly into place.
2. If you have a Raised Flue Pan or Flat Pan, place the riser (provided with the Corsair Arch) on the flat area behind the firebox as far forward as possible. For 2x4 Raised Flue Pans, the riser will have a straight vertical end which should be positioned closest to the firebox. For longer Raised Flue Pans, as well as Flat Pans, the riser is sloped on both ends, making it reversible (See Fig A). You do NOT need to glue or bolt the riser in place. If your pan is a 2x3 Flat Pan OR if it has drop flues, the riser does not apply to you.

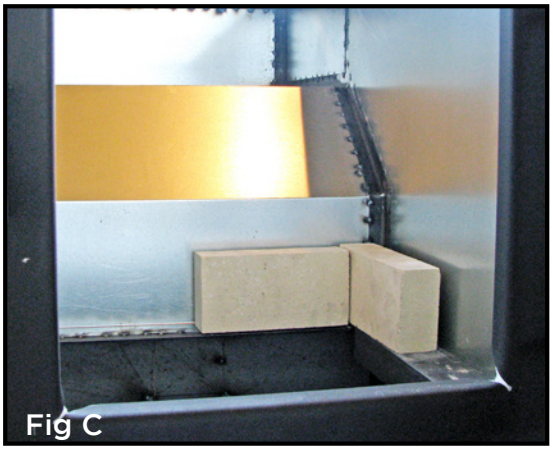

Fig A

3. Using one long piece of insulation, insulate the rear wall of the arch (by the exhaust), down the arch bed (over the top of the riser if applicable), and into the firebox. This long piece of insulation will end at the firebox's rear brick ledge. No insulation is required below the brick ledge, but some folks do opt to use remaining scraps of insulation on the floor and sidewalls.

4. See Fig B and Fig C below, as well as the instructions on your Smoky Lake Brick Batter. Then install the Bricks according to the diagrams beginning on page 3 of this guide.



The pieces of angle iron which were provided with the Corsair Arch should be installed on the left and right sides of the firebox to bridge the front and back ledges. This is where the bricks will sit.



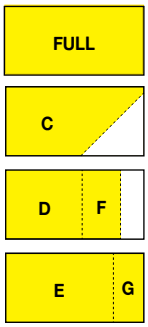
This photo, looking through the door of the firebox, shows the ledge upon which your first layer of bricks will sit. NOTE: Ceramic blanket will have been installed by this point even though these photos don't show it.

5. After bricking, pack a long, skinny piece of insulation on the top left and top right sides of the firebox, fitting it into the gap between the top arch rail and the top layer of bricks. This additional layer of insulation will shield the top rail of the arch and will help prevent flexing. See Fig D below.

The space blocked in red represents the long skinny strip of insulation described in step 6 above. This second layer of insulation should pack snuggly between the top arch rail and the top brick layer. Do the same thing on the left side of the firebox.

BRICK SIZES AND QUANTITIES:

Thin Bricks



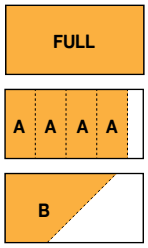
Full: 9" x 4½" x 1¼" ..... Qty 10

Size C: Wedge Shape ..... Qty 2
(Note: The angle is 45º)

Size D: 5" x 4½"x 1¼" ..... Qty 2
Size F: 2½" x 4½" x 1¼" ..... Qty 2

Size E: 7" x 4½" x 1¼" ..... Qty 4
Size G: 1¾" x 4½" x 1¼" ..... Qty 4

Thick Bricks



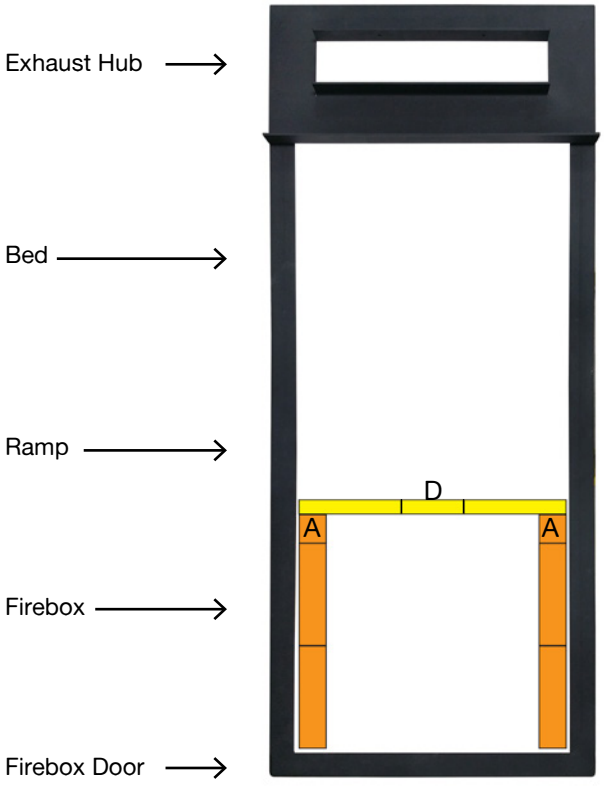
Full: 9" x 4½" x 2⅜" ..... Qty 12

Size A: 2" x 4½" x 2⅜" ..... Qty 4

Size B: Wedge Shape ..... Qty 2
(Note: The angle is 45º)

INSTALLING FIRE BRICK:

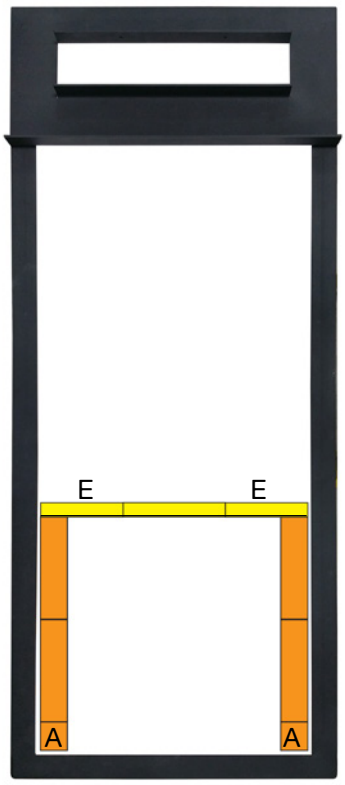
After installing the ceramic insulation blanket *(see page 1 – 2 of this guide)*, follow these diagrams to install your bricks. Each diagram depicts an aerial view of a Corsair evaporator. The bricks will be placed only in the firebox and on the ramp. Only the cut bricks are labeled *(see the key above)*. All unlabeled bricks are full size *(9" long and 4.5" wide)*. If you are using Smoky Lake Brick Batter *(High Temperature Mortar)*, please read all mortaring instructions — located on the side of the bucket — before proceeding.

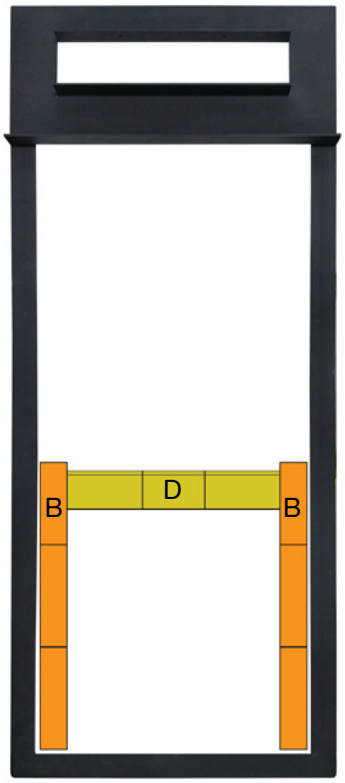


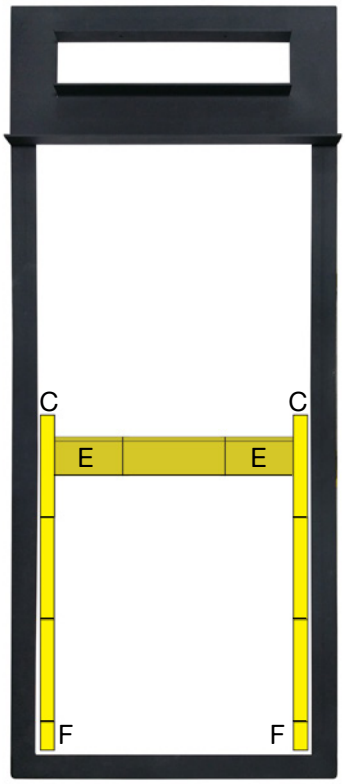
Layer 1:

This bottom layer of bricks should be placed on the ledge inside your firebox. There will NOT be bricks below the ledge.

- Full length (thin) ..... Qty 2
- Size D (thin) ..... Qty 1
- Full length (thick) ..... Qty 4
- Size A (thick) ..... Qty 2







Layer 2:

These bricks will be placed on top of layer 1 bricks.

- Full length (thin) ..... Qty 1
- Size E (thin)..... Qty 2
- Full length (thick) .... Qty 4
- Size A (thick)..... Qty 2

Layer 3:

These bricks will be placed on top of layer 2 bricks. First, install the three thin bricks at the base of the ramp. Size B bricks will then overlap the two full length thin bricks.

- Full length (thin) ..... Qty 2
- Size D (thin) ..... Qty 1
- Full length (thick) .... Qty 4
- Size B (thick)..... Qty 2

Layer 4:

These bricks will be placed on top of layer 3 bricks. First, install the bricks on the ramp. Size C bricks will overlap the Size E bricks.

- Full length (thin) ..... Qty 5
- Size C (thin) ..... Qty 2
- Size E (thin)..... Qty 2
- Size F (thin)..... Qty 2

Layer 5:

Before placing the grates back into the firebox, you will need to insert your last four fire bricks on the ledge beneath the firebox's door. If space allows, place a layer of insulation between the bricks and the door frame.

- Size G (thin) ..... Qty 4

Increase Longevity of Standard Steel Grates:

If your evaporator came with standard steel grates as shown above, you may fill them with sand to increase their life expectancy. This is NOT necessary for our domed, forced draft grates.

This photo shows brick placement of the side wall and ramp of the firebox. After bricking, remember to then install a second layer of insulation between the top arch rail and the top brick layer.
(See Figure D on page 2)

NOTE: The above photo is shown WITHOUT Smoky Lake Brick Batter (High Temp Mortar)

Finished bricking. Viewing the back of the front door frame.

NOTE: This photo is shown WITHOUT Smoky Lake Brick Batter (High Temp Mortar)