

Bricking a Corsair Arch

CORSAIR SIZE: 2 feet wide x 8+ feet long (Firebox is 2 feet wide x 30 inches long)

SMOKY LAKE BRICK KIT:

- 19 Thick Fire Bricks
- 19 Thin Fire Bricks

NOTE: Precut bricks available on SmokyLakeMaple.com

YOU WILL NEED:

- Ceramic Blanket Insulation
(Available on SmokyLakeMaple.com)
- Brick Saw
(OR order precut bricks from SmokyLakeMaple.com)
- Pencil
- Measuring Tape
- Utility Knife
- Safety Equipment: Gloves, Safety Glasses, Ear Plugs
- 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. (See Fig A) The riser is sloped on both ends, making it reversible. You do NOT need to glue or bolt the riser in place. If your pan has drop flues, the riser does not apply to you.



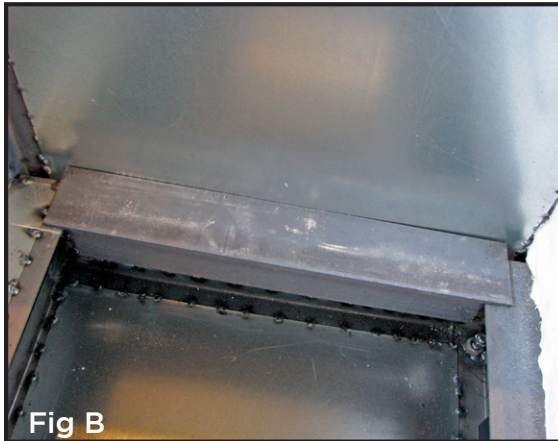
3. Using one long piece of insulation, insulate the rear wall of the arch (by the exhaust), down the arch bed (over the top of the riser if applicable), and into the firebox. This long piece of insulation will end at the firebox's rear brick ledge. No insulation is required below the brick ledge, but some folks do opt to use remaining scraps of insulation on the floor.
4. If you did not order precut bricks from Smoky Lake, use a brick saw to cut your bricks according to the cut list on page 3.



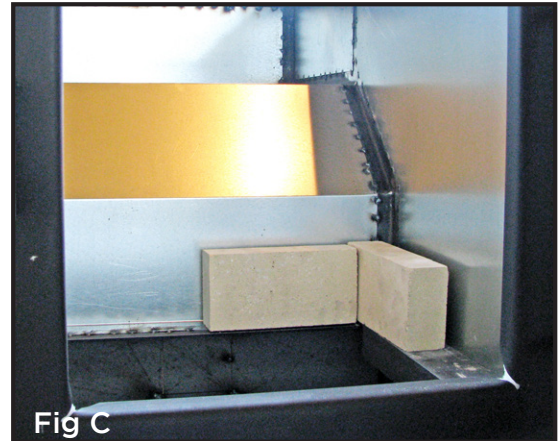
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5. See Fig B and Fig C below, as well as the instructions on your Smoky Lake Brick Batter. Then install the Bricks according to the diagrams beginning on page 3 of this guide.



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.








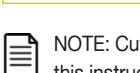
This photo, looking through the door of the firebox, shows the ledge upon which your first layer of bricks will sit. NOTE: Ceramic blanket should be installed at this point even though these photos don't show it.


6. 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.








BRICK SIZES AND QUANTITIES:


Thin Bricks

	Full: 9" x 4½" x 1¼"Qty 12
	Size A: Wedge ShapeQty 2 (Note: The angle is 45°)
	Size B: 5½" x 4½" x 1¼"Qty 2
	Size C: 1¾" x 4½" x 1¼"Qty 2
	Size D: 7¼" x 4½" x 1¼"Qty 4
	Size E: 9" x 2¼" x 1¼"Qty 2

 NOTE: Cutting templates are located at the back of this instruction guide. Precut bricks are available from SmokyLakeMaple.com.

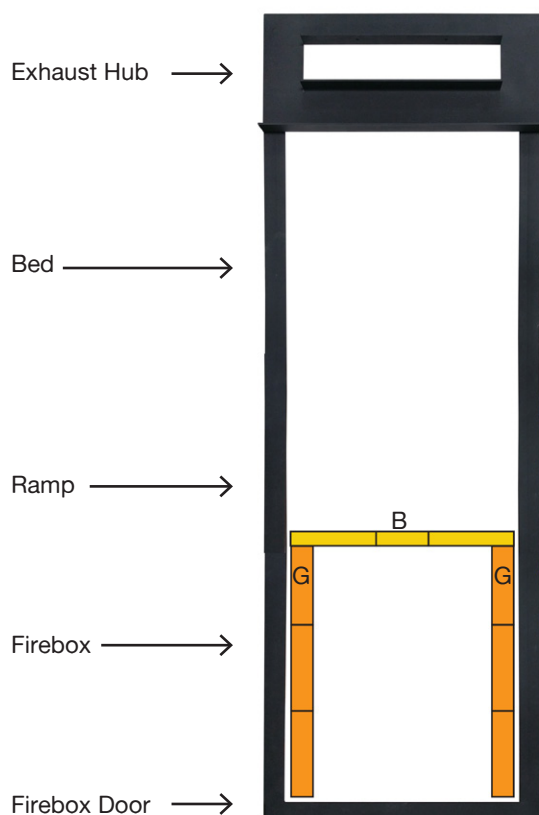
Thick Bricks

	Full: 9" x 4½" x 2⅜"Qty 12
	Size F: Wedge Shape.....Qty 2 (Note: The angle is 45°)
	Size G: 8¼" x 4½" x 2⅜"Qty 2
	Size H: 4⅞" x 4½" x 2⅜"Qty 4
	Size I: 6¼" x 4½" x 2⅜"Qty 2

 If you are printing the templates from a PDF, make sure you select "**ACTUAL SIZE**" from the print dialog menu. The "Fit to Page" setting would render the templates too small.

INSTALLING FIRE BRICK:

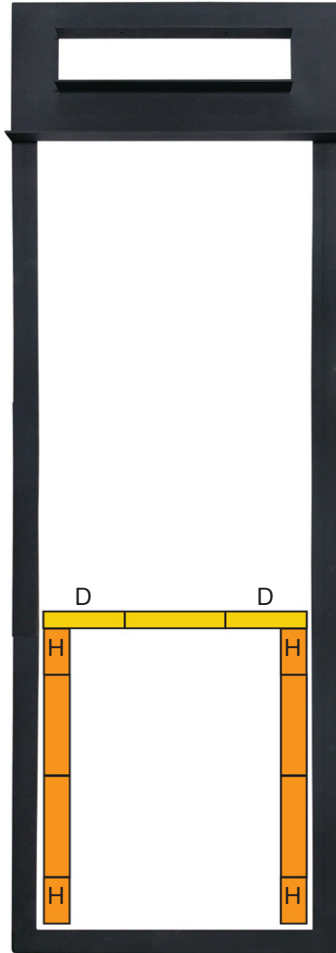
After installing the ceramic insulation blanket (see page 1 – 2 of this guide), follow these diagrams to install your bricks. Each diagram depicts an aerial view of a Corsair evaporator. The bricks will be placed only in the firebox and on the ramp. Only the cut bricks are labeled (see the key above). 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 grates.

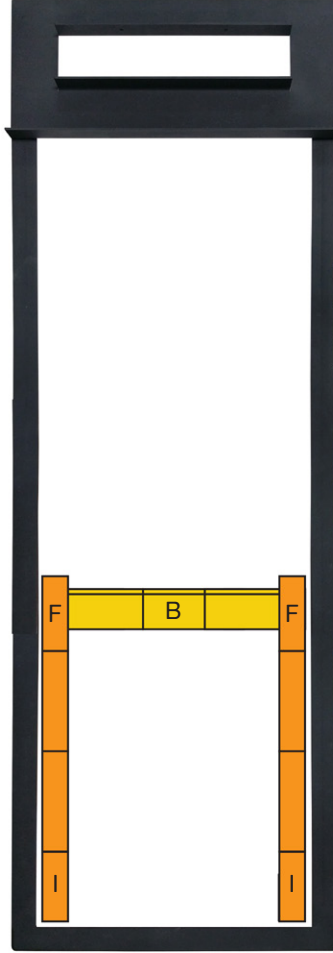
- Full lengthQty 2
- Size BQty 1
- Full lengthQty 4
- Size GQty 2



Layer 2:

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

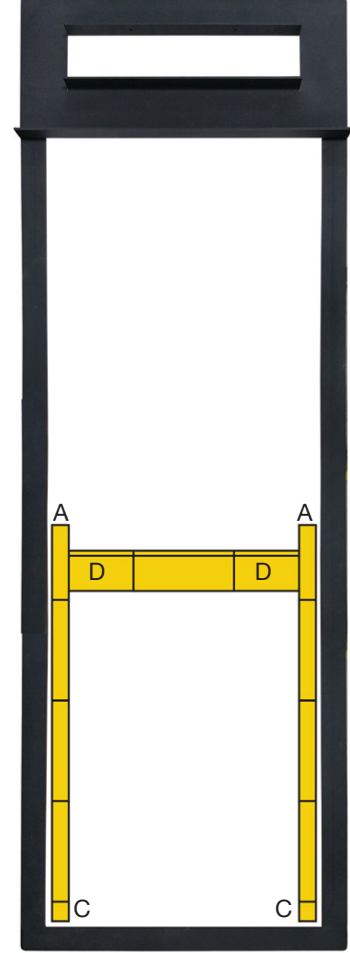
- Full length Qty 1
- Size D Qty 2
- Full length Qty 4
- Size H Qty 4



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 F bricks will then overlap the two full length thin bricks.

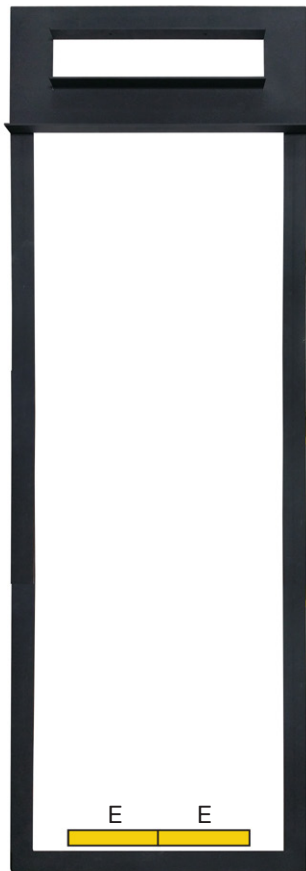
- Full length Qty 2
- Size B Qty 1
- Full length Qty 4
- Size F Qty 2
- Size I Qty 2



Layer 4:

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

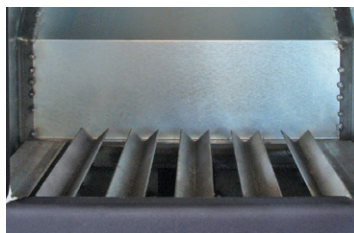
- Full length Qty 7
- Size A Qty 2
- Size C Qty 2
- Size D Qty 2



Layer 5:

Before placing the grates back into the firebox, you will need to insert your last two 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 E Qty 2



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.



Finished bricking. View of the right side wall inside the firebox. NOTE: This photo is shown WITHOUT Smoky Lake Brick Batter (High Temp Mortar)



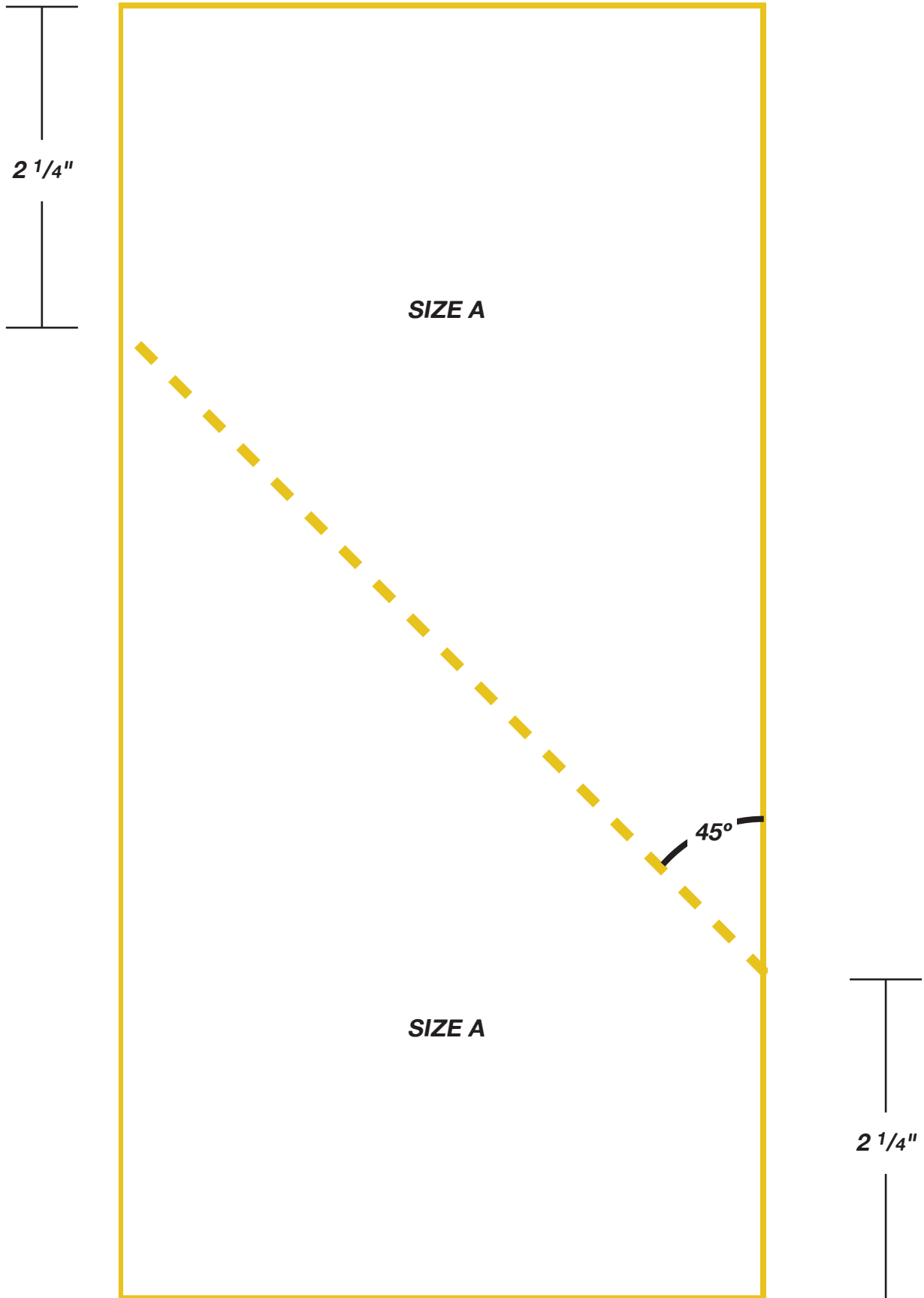
Finished bricking. View of the back wall and ramp of the firebox. NOTE: This photo is shown WITHOUT Smoky Lake Brick Batter (High Temp Mortar)



Finished bricking. View of Bricks E under the door. The upgraded Domed Cast Iron grates are also shown in place. NOTE: This photo is shown WITHOUT Smoky Lake Brick Batter (High Temp Mortar)

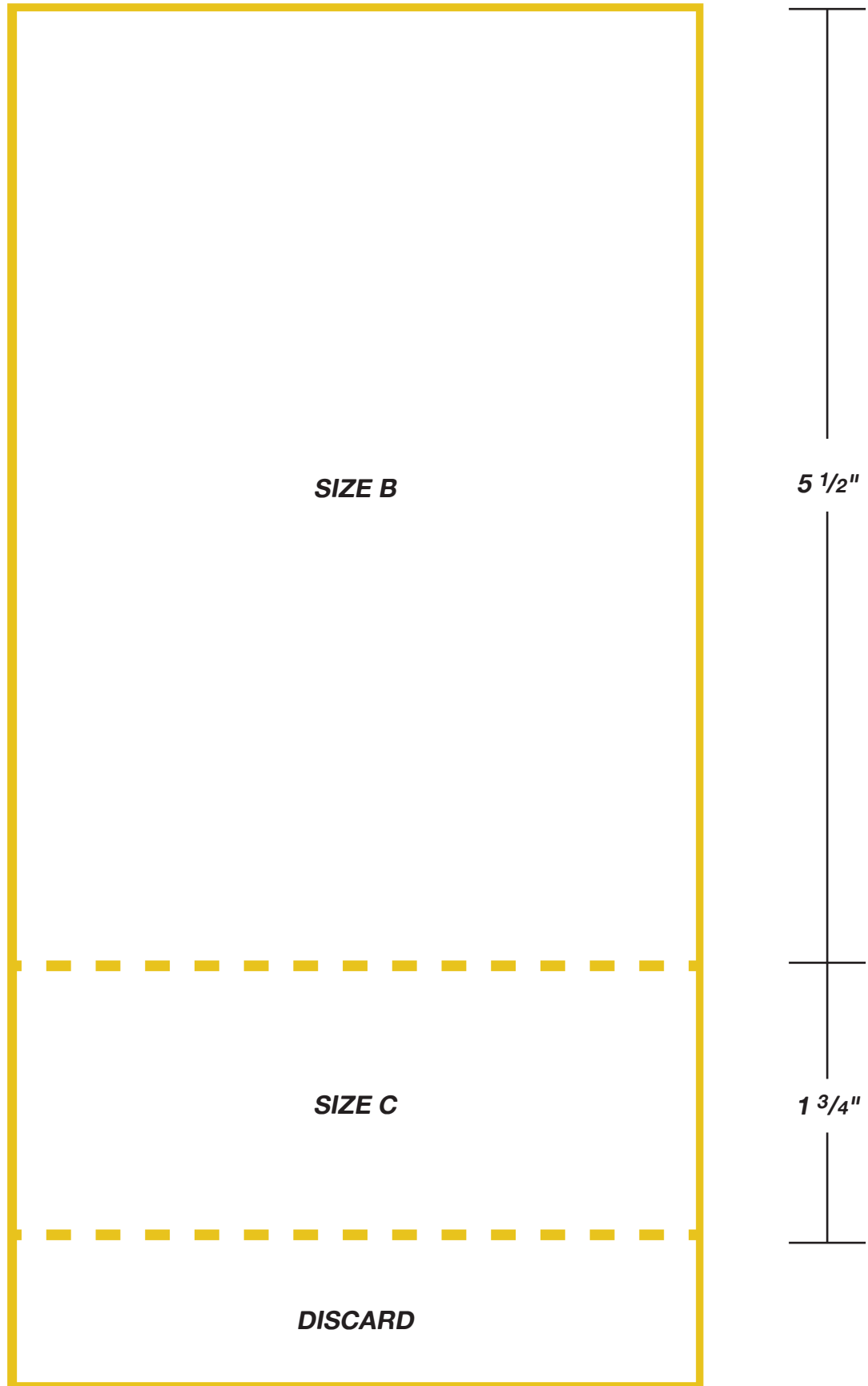
CUTTING TEMPLATE A:

Cut ONE thin brick into TWO pieces according to the below template



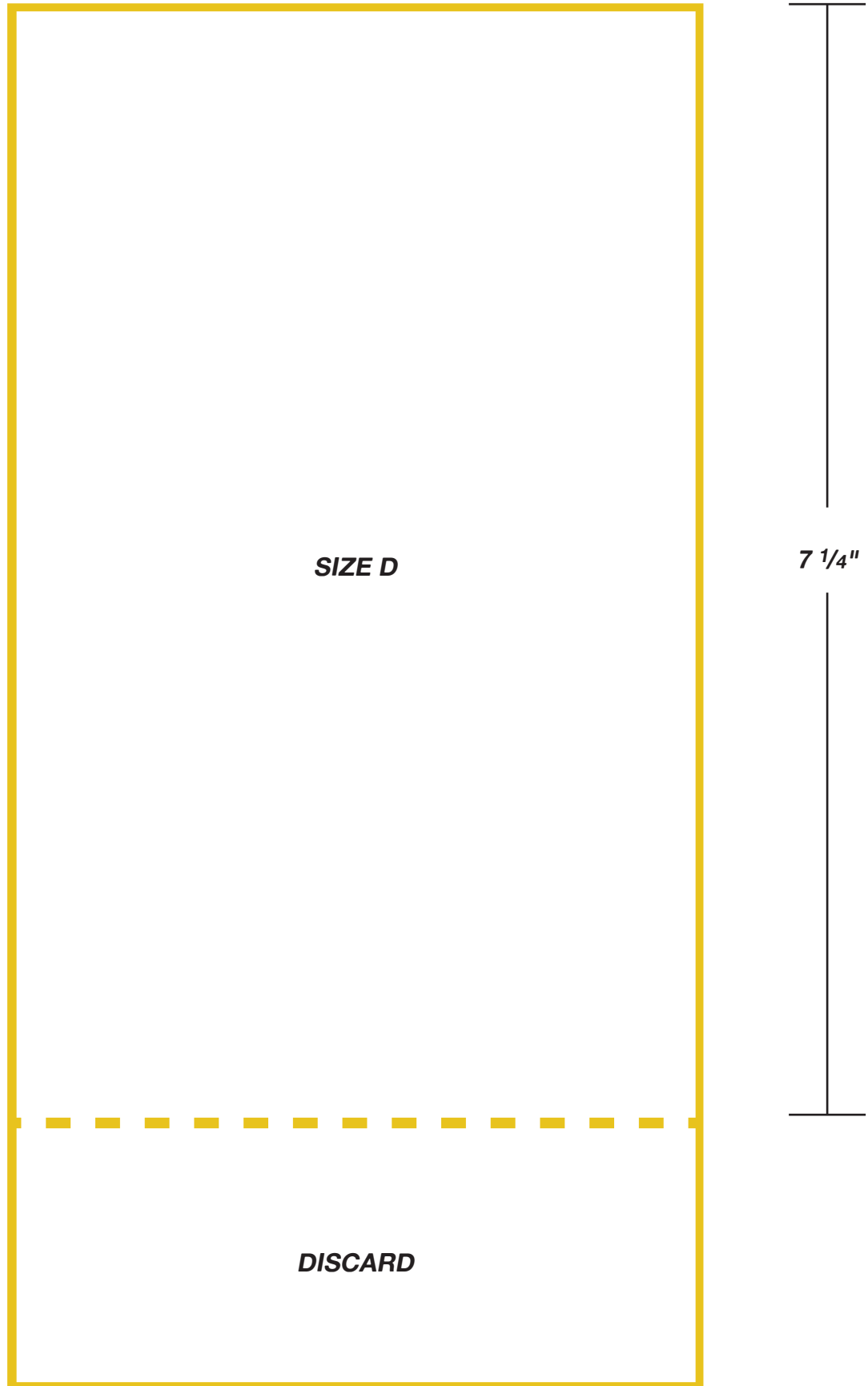
CUTTING TEMPLATE B / C:

Cut TWO thin bricks according to this template. You should end up with TWO Size B bricks and TWO Size C Bricks.



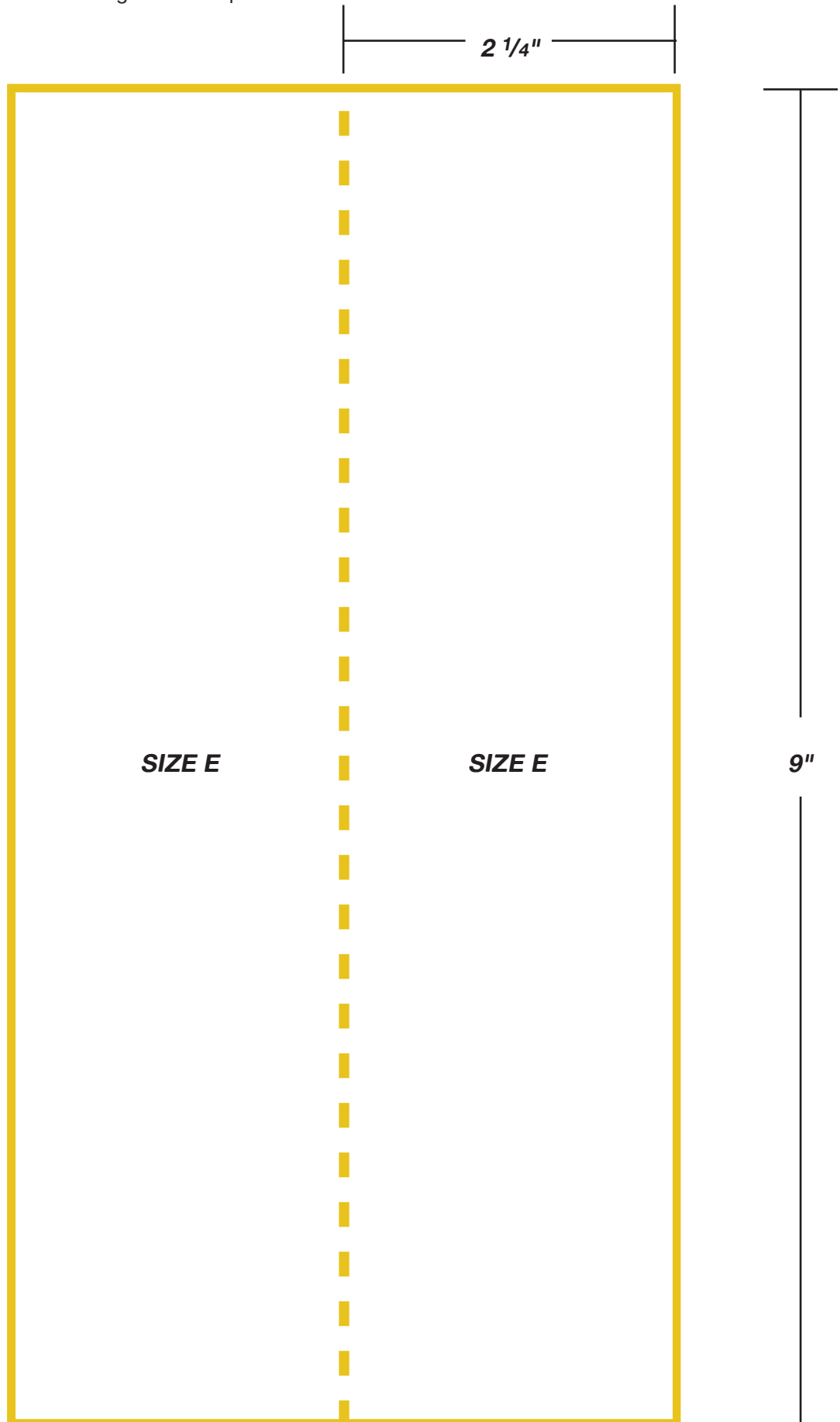
CUTTING TEMPLATE D:

Cut FOUR thin bricks according to this template to create FOUR Size D bricks.



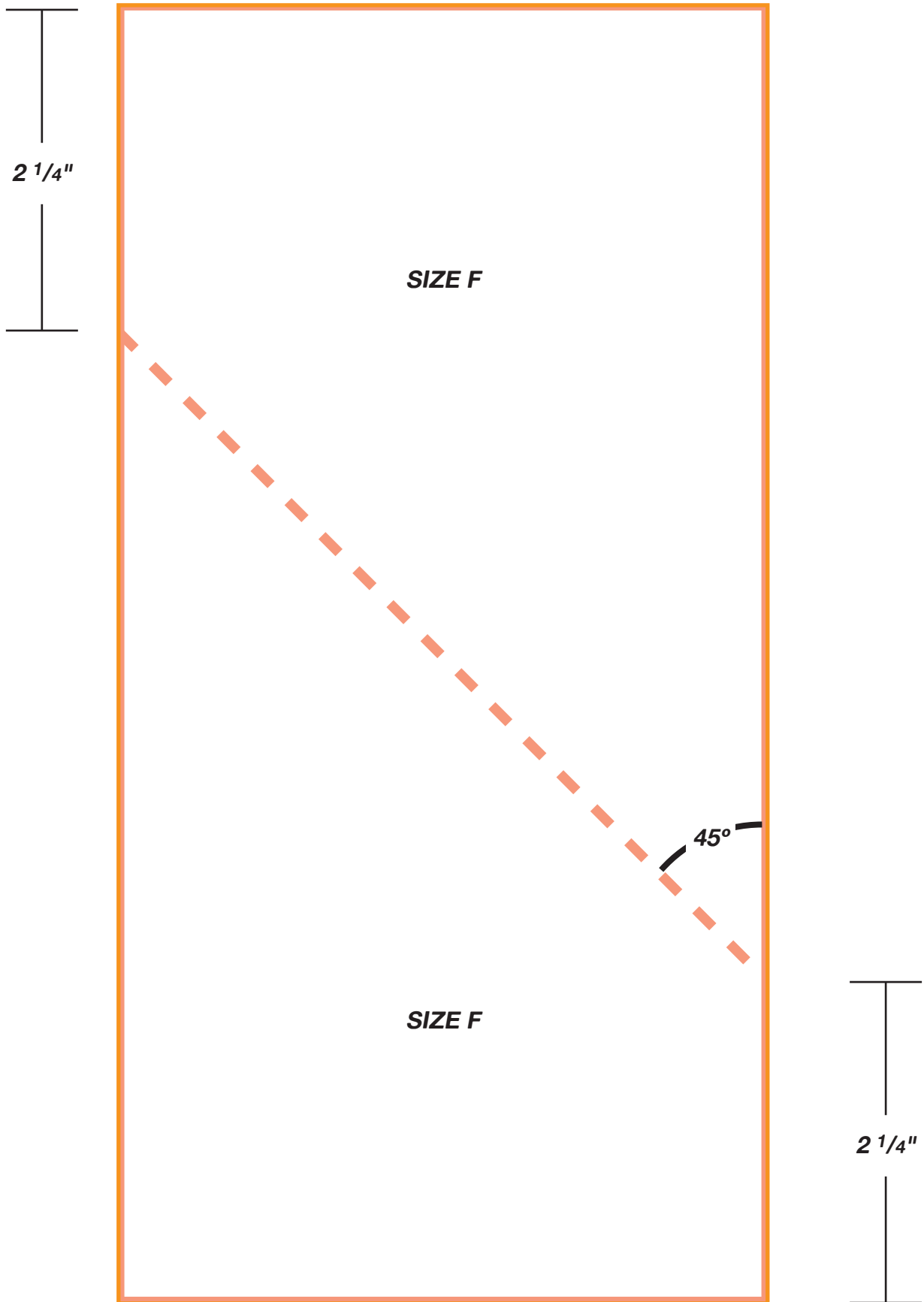
CUTTING TEMPLATE E:

Cut ONE thin brick according to this template to create TWO Size E Bricks.



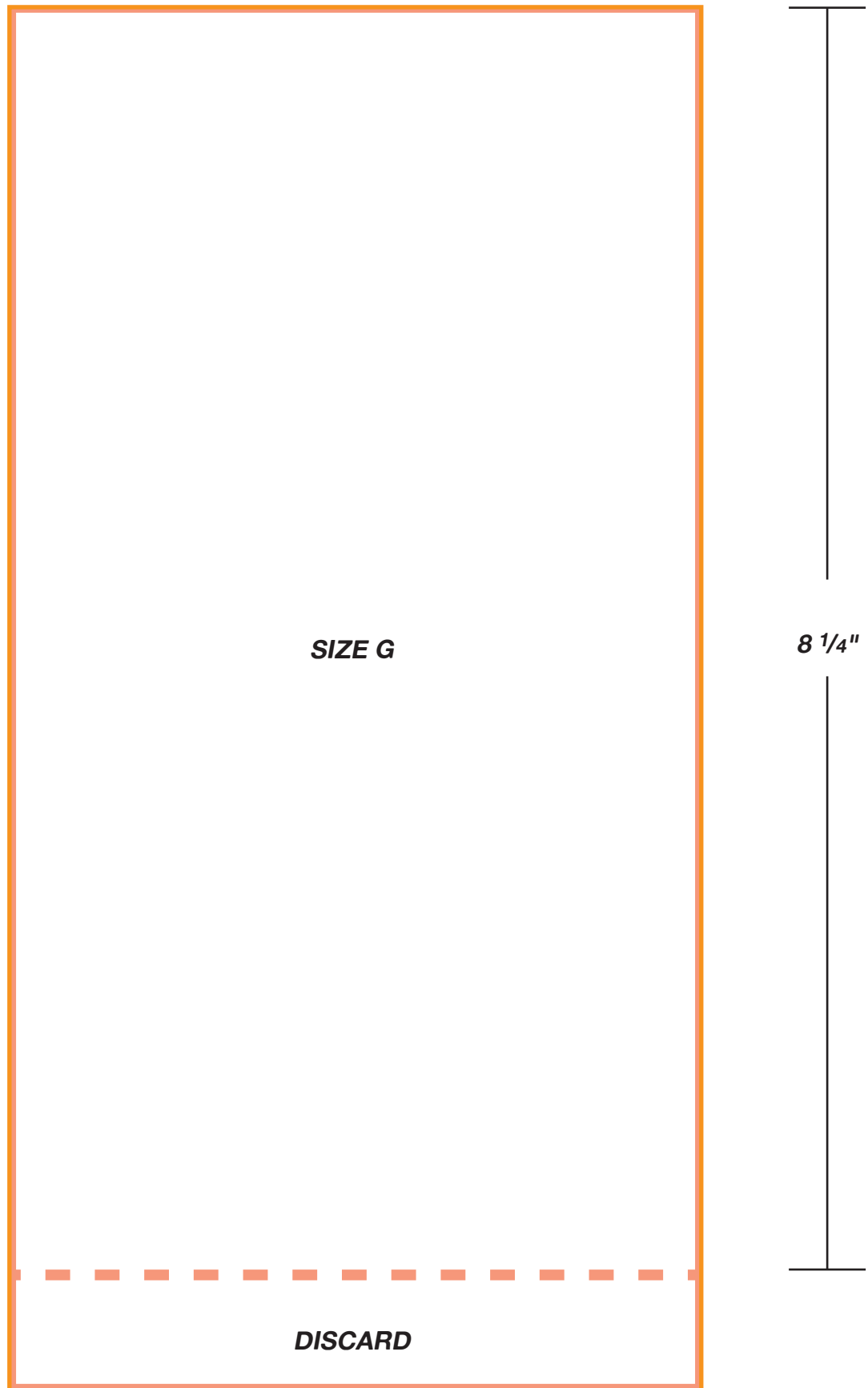
CUTTING TEMPLATE F:

Cut ONE thick brick according to this template to create TWO Size F Bricks.



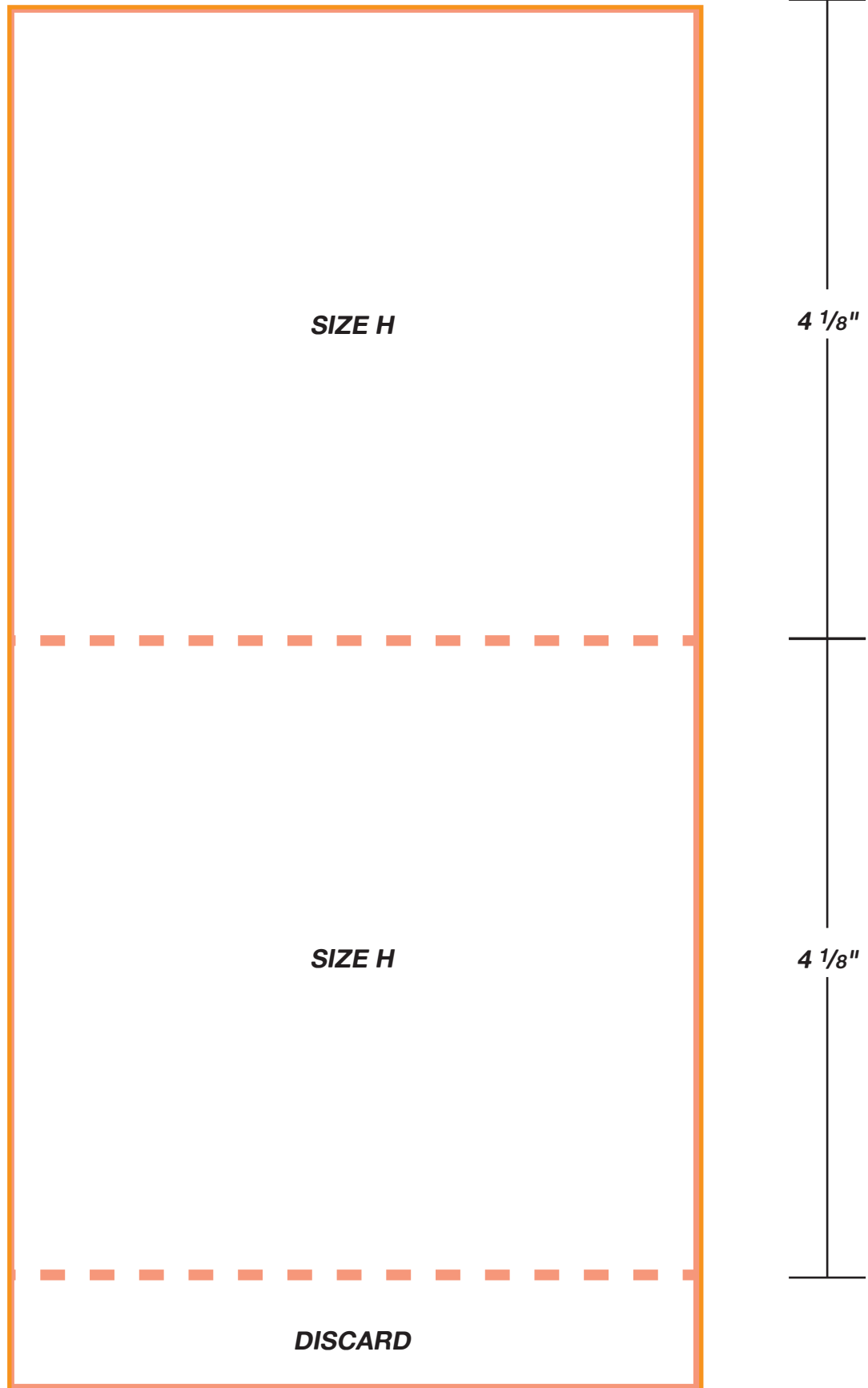
CUTTING TEMPLATE G:

Cut TWO thick bricks according to this template to create TWO Size G Bricks.



CUTTING TEMPLATE H:

Cut TWO thick bricks according to this template to create FOUR Size H Bricks



CUTTING TEMPLATE I:

Cut TWO thick bricks according to this template to create TWO Size I Bricks

