

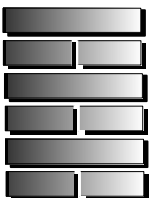
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# Heat-Kit System

## Modular Contraflow Masonry Heater Core

### Outside Air Instructions for Slab-on-Grade Installation

All Models



**Masonry Stove  
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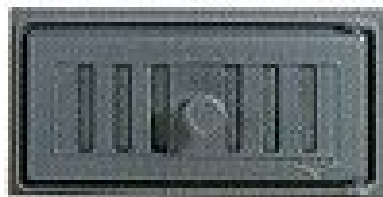
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For slab on grade installation, the ash cleanout space is immediately below the firebox.



**Figure 1**

An ashbox door with an integral air control is installed in the facing and is used to supply the air.



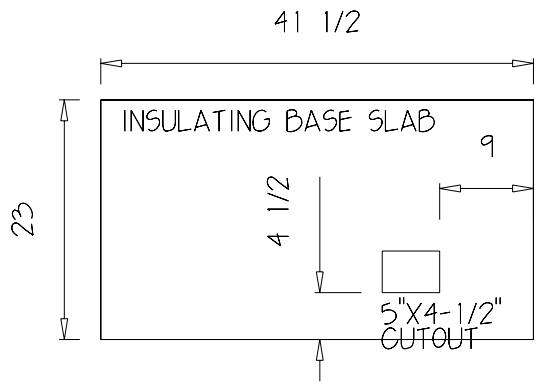
**Figure 2**

In many building code jurisdictions, there is still a requirement for outside air for fireplaces. Be sure to check with your local building code official for requirements in your area. If no outside air is required, then it is not necessary to install it, as there is no benefit from using outside air (for more information on this topic, refer to the online documents at

<http://mha-net.org/msb/docs/outsair.htm> )

If outside air is required in your locality, you will need to run a 4" insulated duct under your slab with an outlet at the heater. The easiest installation is to have the outlet immediately in front of the ashbox door (outside the heater). You will need to provide some means to shut the air off when not in use, such as a removable cover for the hole.

Some jurisdictions may require you to provide outside combustion air directly to the firebox, rather than simply near the air inlet in front of the ashbox door. If this is the case, then follow the instructions below.



**Figure 3**

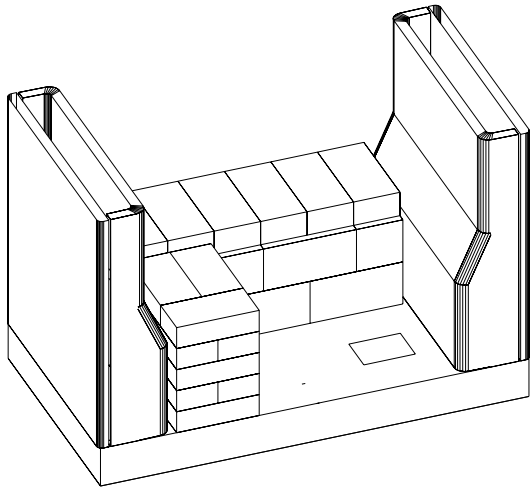
Determine the exact location of the heater on the floor.

Cut an air inlet hole in the insulating base slab as shown. The vermiculite concrete mix is easy to cut.

If there is an existing centre hole in the insulating base slab for a conventional air supply, fill this hole with mortar.

The air supply hole in the slab-on-grade will have to line up with this hole

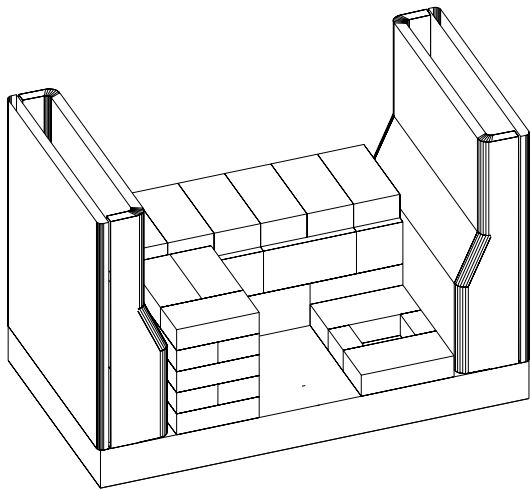
This layout can be reversed right-to-left if desired (ie., the air hole could also be on the left side).



**Figure 4**

View of the core with the left brick fill piece in place (see assembly instructions).

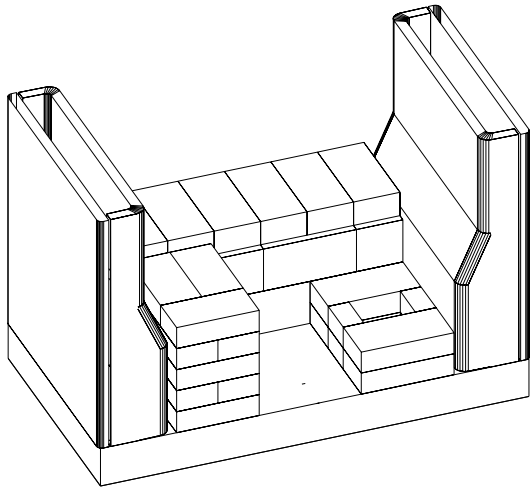
The cutout in the insulating base slab is shown on the right. This is where the combustion air will come in.



**Figure 5**

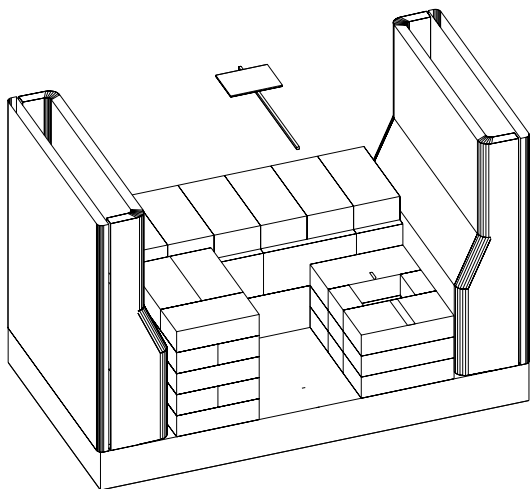
Build up the right fill piece using firebricks and refractory mortar (thin joints).

Use full size bricks (9" long) and two 2" pieces as shown.



**Figure 6**

Next course is set on top with stacked head joints.



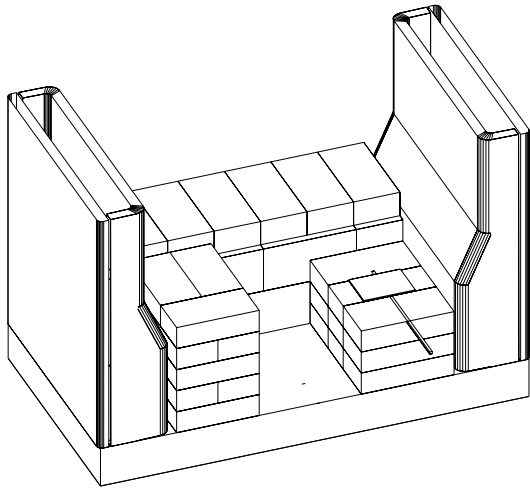
**Figure 7**

Cut notches in the third course as shown.

You will need to have welder fabricate a pivoting plate as shown to provide an air shut-off.

Make a cardboard template for the welder that will provide a reasonably tight fit without binding.

Use 1/4" steel rod for the pivot and handle. Make the handle long enough to project 2" past the outside facing, which is normally about 5" thick.

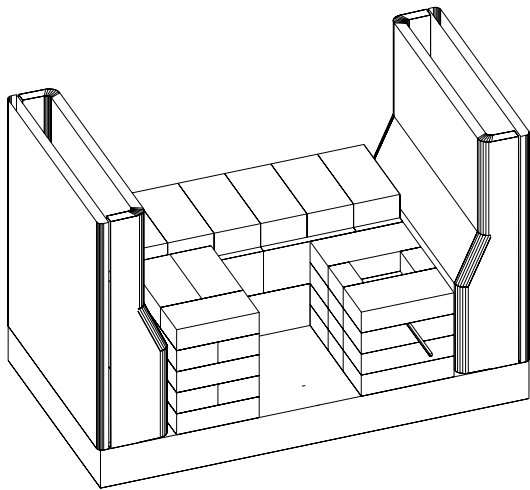


**Figure 8**

The pivoting plate in place.

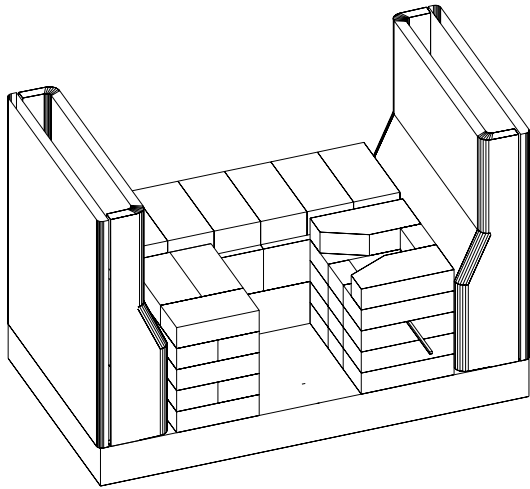
(Not shown:) Once you know the exact thickness of the facing, put a 90 degree bend at the end of the handle, in the same direction of the plate.

When installing the facing, set the rod in solid mortar to provide some friction. Make sure to break it loose before the mortar sets fully, so that it is not locked in place.



**Figure 9**

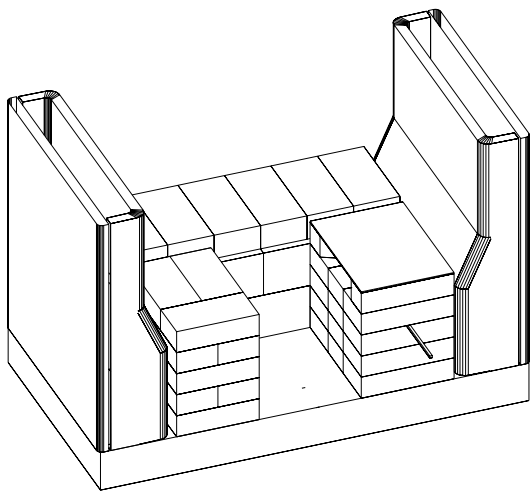
Next course.



**Figure 10**

Top course.

Bevel the bricks as shown to provide an air outlet immediately under the firebox floor.



**Figure 11**

Covering with 1/16" steel plate (shown) makes it easier to spread a mortar bed for the firebox floor, but is not required.

Lay the mortar bed down carefully in this area, and clean up from underneath, to avoid any major mortar droppings into the air supply duct.

Set the steel flatbars as per standard assembly instructions, and proceed with standard assembly instructions.