

Horizontal Cinder Block Smoker Construction

OK hear me out, if you plan on a permanent mortar construction, I strongly suggest a dry fit test build - and cook - before fully committing. The extra effort is worth it. If it turns out the location isn't ideal, or a block(s) gets placed incorrectly it's difficult to recover from it when the joints are set with mortar. Here's the thing, once you test it you may find the dry stack works great as it is, like I did, and you won't feel like you need to mortar all the joints.

Another suggestion is don't build it too close to a structure – like your house.

Depending on the top you use for the smoke box there could be potential for a fire. It hasn't happened to me with my plywood cover; it's just precautionary common sense.

The dimensions are rough based on a permanent construction with a 3/8" mortar joint thickness. Dry stacking will be slightly smaller.

Smoke Box

- Outside Dimensions: 56" wide x 64" long
- Inside Dimensions: 40" wide x 48" long
- Height: 32"

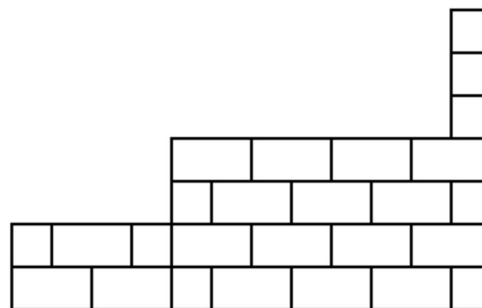
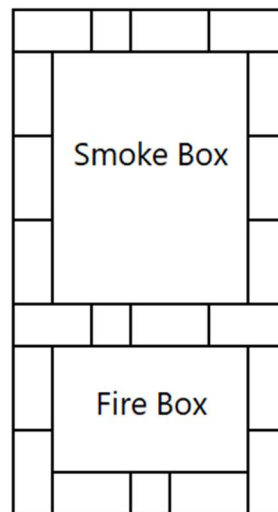
Fire Box

- Outside Dimensions: 56" wide x 32" long
- Inside Dimensions: 40" wide x 24" long
- Height: 16"

Total Footprint

- Overall Size: 56" wide x 96" long

Top View



Fire Box

Smoke Box

Material List

Quantity	Description	
19	8 x 8 x 16 Corner Construction Blocks	
42	8 x 8 x 16 Regular Construction Blocks	
15	8 x 8 x 8 (Half) Construction Blocks	
19	2 x 8 x 16 Solid Construction Block (Top Cap) Getting a few more than what's listed isn't a bad idea. You'll need to break 4 of these in half and it doesn't always go perfect...	
1	Sheet metal 48" wide x 56" long Or 1/2" plywood sheathing does also work and is what I have	
1	3/16" Plate Steel, 48" wide x 28" long (if welding a handle) 48" wide x 34" long (for front finger grip) 58" wide x 28" long (for a side finger grip) *See Fire Box Cover page for a visual	
4	1/2" x 4' Rebar or Steel Rod	
2	80 lb Bags Mortar (If you plan on permanent construction)	
1	Masonry Trowel (Brick or Block Trowel – if needed)	
Tools:	Drill	
	5/8" Masonry Drill Bit	
	6' Level (8' is better but 6' will do)	
	Carpenters Square	
	String Line	
	Hammer	
	Chisel	

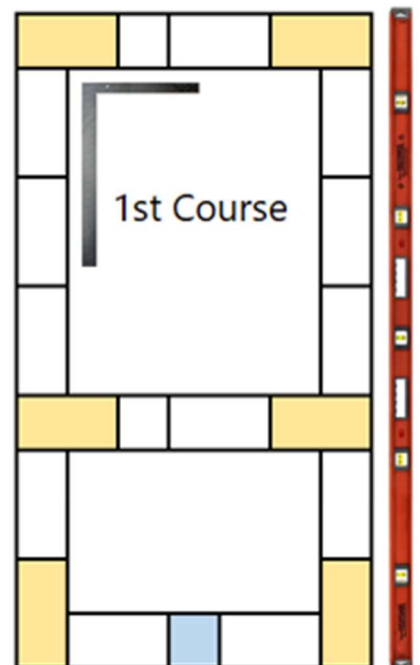
1st Course

The ground must be flat and level before placing the first (ground) course.

Take your time with this. If you ensure the corners are square and the runs are level and straight, the rest will be a breeze. Get the first course right and you're golden!

Sideways For Airflow The blue indicates the air vent for the firebox. Don't forget to turn this block to allow air to the fire.

Corner Blocks are indicated in yellow. Using corner blocks in the positions indicated in each course will result in a cleaner finished look. You can see in the picture below where I used regular construction blocks instead of corner blocks. I'm saving you from the mistakes I made. 😊

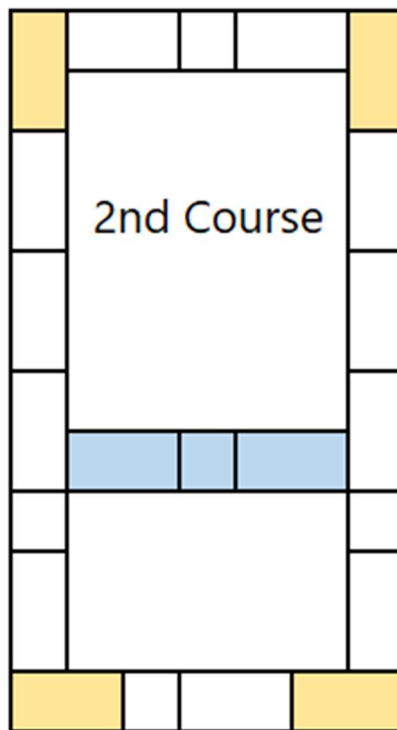


2nd Course

With the 1st course flat, level, and square you're on track to speed through the rest of the build! As you stack the 2nd course as shown here keep the sides flush with the 1st course and continue to check for level and square as you go.

Here you'll establish the vents between the fire box and smoke box. Turn the blocks highlighted in blue sideways. After this you're done with the firebox and there's just two courses left on the smoke box– you got this!

Corner Blocks



Sideways For Airflow

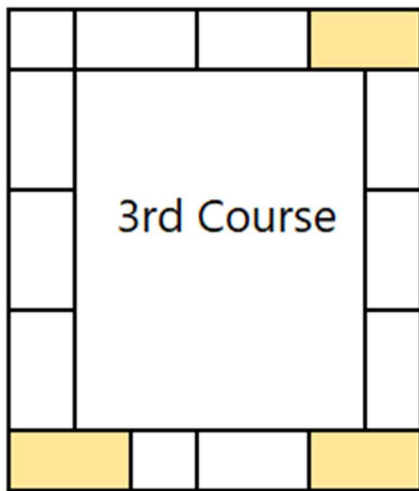


3rd and 4th Smoke Box Courses + Chimney

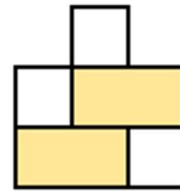
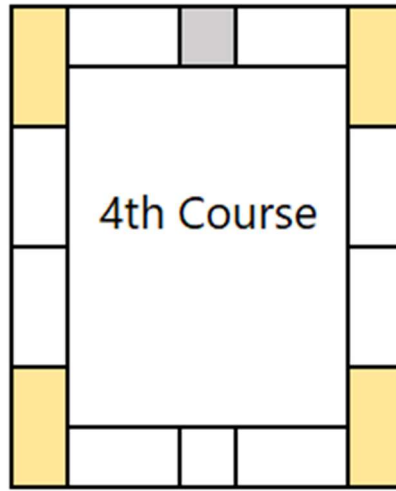
With two courses already complete you're done with the firebox and have a great start on the smoke box!

In the 4th course you'll need to chisel and break one of the 4 sides of a Half Block for the chimney opening. Break the side that already has a center groove. Use a circular saw with a masonry blade if you have one. Wear some eye protection – the chips can fly everywhere.

Corner Blocks



Chimney Opening

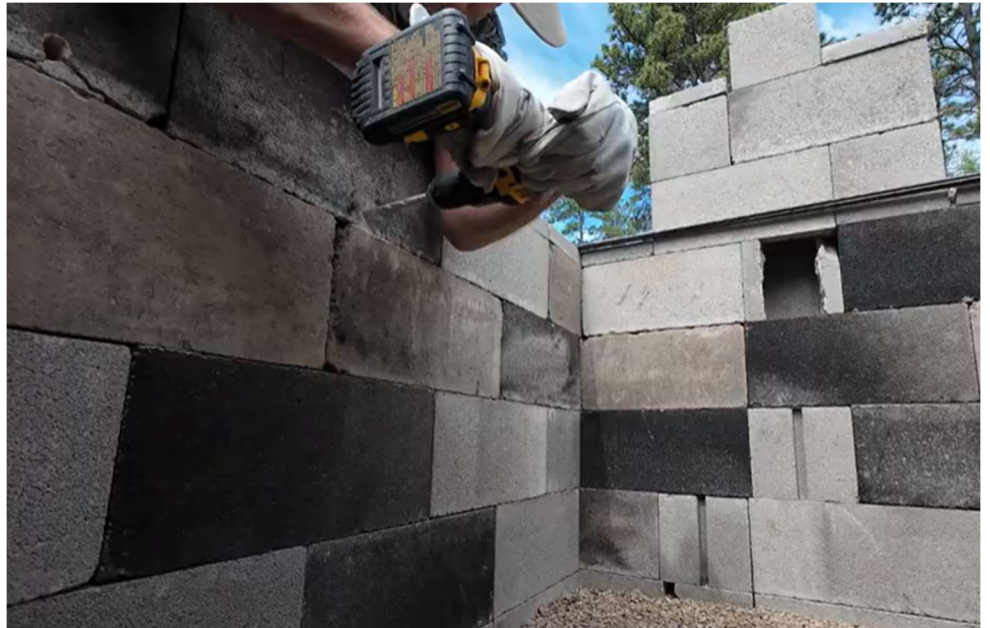


The chimney will be stacked on the back row of the 4th course with the center holes lined up with the chimney opening.



Installing the Rack

You'll be drilling 8 holes using the 5/8" masonry bit through the block – 4 holes spaced evenly on each side to install the 4 ft long 1/2" rebar (or steel rods).



It's OK if the holes aren't perfectly spaced. You just want them spaced for weight distribution when you're cooking that whole hog!



Installing the Top Caps

The top caps give it a clean and finished look and also keeps rain and snow from filling the blocks.



You'll be breaking/cutting four of the top caps in half. It doesn't always go perfect so this is where having a few extra may come in handy. I sacrificed a couple and still could have done better. Start with scoring a center line with the chisel. If you can get a fairly deep centerline groove it will break cleaner. This is where a circular saw with a masonry blade would really come in handy for the cleanest look.



Insulated Blocks

I filled all the block cavities in mine with gravel to add insulation and thermal mass. This is particularly useful when smoking in the middle of winter. The gravel helps the entire structure retain and radiate heat for the most efficient wood consumption. Once it's at temp it only takes a couple splits every hour to maintain a 250° F smoking temp even when it's 20° F outside. When it's that cold I start an initial fire in the smoke chamber as well to build heat in the blocks then spread the remaining coals to the outside edges during the cook.



Smoke Box Cover

You can use a few different things for the smoke box cover. If you use ribbed sheet metal (siding or roofing) you may need to insulate any air gaps with tinfoil. You don't want paths for smoke and heat to escape before it travels across the smoke chamber to the chimney.

I used OSB plywood to begin with (pictured here). If you do wood, I recommend plywood sheathing as it has a better surface without the pressed and glued chips OSB has. That's what I'll be doing next along with attaching thin sheet metal to the bottom side. The wood offers some insulation to keep more heat in while the metal will protect the underside from burns. I didn't have any issues with an exposed plywood top smoking for 10+ hours at a time at 250°F. But still, maybe don't build it too close to your house or other flammable structure...



Fire Box Cover

I welded some bent rebar for a handle on mine to lift the lid. If you don't have access to a welder just have the steel supplier in your area cut the lid large enough so it extends past the edge of the blocks for a finger hold.

Mine is 48" wide x 28" long with the handle. You can do 48" wide by 34" long without a handle for a finger hold in the front, or 58" wide x 28" long for a finger grip on the side.

If you do a finger hold, use heat resistant gloves for sure – that top gets extremely hot.

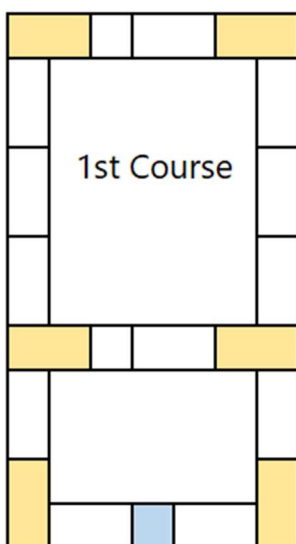
Smoking, Barbecuing, Cooking, and Living Large

The smoker will be efficient and fantastic for smoking, but now that your cinder block smoker is built you not only have an impressive smoker, you have a cook top, hearth, and backdrop for sooo many incredibly creative ways to cook and BBQ. You can smoke mouthwatering meat of every kind without limits, you can also use the firebox as a fire and coal oven, use the steel plate fire box cover as a cook top using coals and grates for barbecuing anything and cooking anything campfire style, use the structure for reflective heat for asado cross or suspended rack cooks. You built something so versatile it replaces thousands of dollars of equipment. Embrace your creativity and make amazing food!

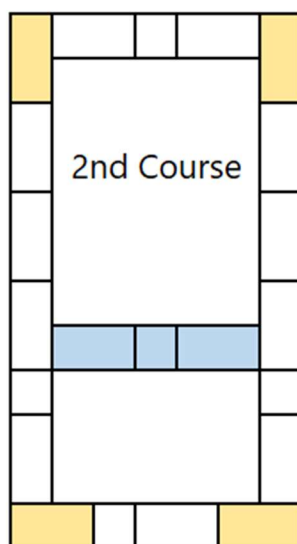
If you want to see some examples of how I've used this smoker in creative ways check out Savage Outdoor Cooking on YouTube. God bless and happy cooking!

Link to the Channel: https://youtube.com/@jsavagecooking?si=-qgt_SXkuti0Rb4M

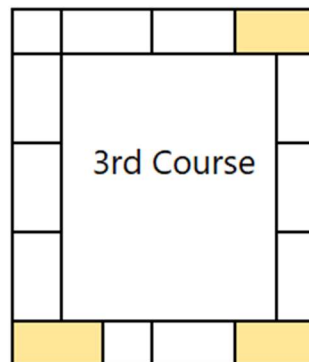
Sideways For Airflow



Corner Blocks



Chimney Opening



Chimney

