

Ask Jon Eakes

Getting the bathroom exhaust fan out through the wall.

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Annia asked about getting rid of some mould in her basement bathroom. I have often discussed mould and mould clean-up and in every case I point out that you must have an exhaust fan in the bathroom. So today I thought I would talk about just how you get the exhaust fan duct through the basement wall to the outdoors.

If you want to cut a hole through the concrete, you'll need to rent a monster drill capable of cutting right through that wall. You could also use that same rental drill to drill through a brick wall. But if you do have a brick wall on the outside, you can do the job with smaller DIY tools. Here is what to do.

We will cut a hole in the rim joist, the floor joist that goes around the outside of the house, and through the brick on the other side of it. One great way to run fans through brick walls is to use exhaust ducts that are specifically made the size of one or two bricks, but they are difficult to find. If you want to use a standard 3-1/2 x 10 rectangular exhaust hood, first measure the size of the joint between two rows of bricks. If the mortar joint is fat enough, one of these hoods could fit vertically in the space of one brick -- otherwise you will find yourself trying to remove a sliver from one row of bricks, a difficult job. You will probably have to cut a bit off of one brick in the 10 inch direction anyway. You can always fit a 3 inch diameter duct right in the space of half a brick, and if this is what you want to do, make sure you buy a fan with a 3 inch duct attachment.

Pick the joist section where you want to run the exhaust fan through the wall. Measure from the centre of this to the nearest window, or pipe, or anything that runs right through the wall. Then on the outside of the house, measure back the same distance to locate where the duct will come out on the outside. If you are going to remove only half a brick, drill some holes through the brick to cut it in half. Then drill out the mortar around the half brick, or the whole brick, or the brick and a half that you want to remove, and the brick will just fall out of the wall. Mark the middle of the half brick, or the four corners of the larger rectangular hole on the building paper that you see when you look through your brick hole. Now drill through these marks into the basement. What we are doing is a rough location on the inside, transfer that rough location to the outside, shift a bit up-down-left-right to make things easiest with the bricks or the siding, then use drill holes to mark the spots for cutting on the inside.

Then go into the basement and either cut out a 3 inch hole for a small round duct, or use a saw of some sort to cut out the rectangle. Check that everything lines up well enough to allow you to put the duct through. Don't forget to caulk both the outside and the inside air-and-water tight after the duct is in place.

If you are cutting holes for modern 6 inch ventilation ducts, you must cut the hole slightly larger than 6 inches. The problem is that almost all North American hole saw manufacturers stop at 6 inches. Starrett Tools sells a 160mm "hole saw"; that is slightly more than 6 inches and is perfect for ventilation ducts.

Keywords:

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