

HOW-TO-BLOW REGAL CELLULOSE INSULATION INTO SIDEWALLS OF EXISTING HOMES

Many existing homes don't have thermal insulation in their sidewall cavities. We can all appreciate the value of having a thick blanket of insulation over and around our home's living area. Cellulose Insulation installed into sidewall cavities is a low investment-high return weatherizing material many homeowners are not aware of or unsure of how to do it. Below are guidelines referencing the proper procedure(s) for blowing cellulose insulation into sidewalls.

1) HOW MUCH SIDEWALL INSULATION: Have the customer determine the total sq. ft. area of all walls to be insulated (ht. x width. = total sq.ft. area minus doors/windows sq.ft. area = sidewall sq.ft. area to be insulated). Review the bag's chart to determine the total # of bags needed to blow the calculated sidewall area. Advise these are minimum #'s based on 3.0 lbs. pcf density. Most installations result in an approximate 3.5 lbs. pcf blown density. So, increasing the calculated amount of bags using the coverage chart by 17% should be considered.

NOTE: When recommending to the customer the # of bags needed pay close attention to the sidewall coverage information. Remember these are minimum figures when advising the customer on how many bags to purchase. It is recommended for customers to purchase 5-10% in extra bags. Unused and undamaged bags should be allowed return privileges.

2) EQUIPMENT: The installer will need a loose-fill insulation blowing machine with appropriate accessories. ALWAYS use 50 ft. of hose minimum when using any insulation blowing machine. Most single blower rental machines will blow efficiently as long as the vertical climb (reaching the 2nd story) does not exceed 10 ft. Above 10 ft. vertical climb may require a more powerful multi-blower machine in order to blow the insulation efficiently.

3) MACHINE PREP: The customer should prepare the machine by attaching the delivery hose to the machine's outlet tube securing with duct tape. Then attach an appropriate reducer nozzle to the outlet end of the hose securing with duct tape. If two hoses are needed, an appropriate hose connector should be used. The delivery hose should be inspected for air leaks. Air leaks may be sealed with tape otherwise the hose must be replaced. A leaky hose will cause a blockage of insulation in the hose. A 14 gauge extension cable or larger (12 or 10 gauge) must be used to operate the machine. Customers should connect machine to an electrical circuit containing no other electrical appliance(s). Too many appliances operating on the same circuit can electrically shut down the machine.

4) DETERMINING TYPE OF BLOWING METHOD: Cellulose insulation can be blown into sidewalls from the outside or inside. The installation procedure is basically the same for either. Selection depends on the extent of convenience to access the cavities as well as the type of cosmetic repair necessary to repair the drilled entry holes in the sidewalls. The *outside application* is often used when exterior siding is being replaced. The outside procedure is best done prior to installing new exterior siding. You can also drill and blow through existing siding. Either plastic or wooden plugs can be used to cap the drilled holes if retaining the existing siding. Most bldg. material suppliers offer these plugs. In either case (2) TWO or more drilled entry holes will be needed to properly dense pack each cavity to achieve the necessary density (wt.) needed to completing fill and eliminate settling in each cavity. Brick sided homes are blown by drilling between bricks at points corresponding to each wall cavity. An extended mortar designed blow nozzle must be used to reach each cavity when blowing through brick.

IMPORTANT: The outlet end of the reducer nozzle must extend into the cavity bypassing all building material making up the sidewalls interior or exterior finish.

5) DRILLING THE INJECTION HOLES: multiple 1” i.d. holes should be drilled in each cavity. 8 ft. wall cavities should have a hole drilled 24” up from the floor and 12” down from the ceiling (5 ft. apart). 9 ft. tall wall cavities need an additional 1” drilled 3rd hole centered between the top/bottom holes. 10 ft. and taller walls need holes spaced approximately 2-4 ft. apart. When blowing, first inject into the bottom hole, then move to each subsequent above hole. As you fill the cavity each above hole releases the machine’s air pressure. The top or final hole is where you “top off” the cavity with insulation. When blowing the final or top hole, DO NOT press the tapered nozzle flush against the wall panel. Allow a little space for air to exit. **REMEMBER:** the point of injection is ALWAYS below the insulation being added. *Very Important!* If only blowing into a single drilled hole per cavity, the density (wt.) of the insulation will be insufficient causing settlement leaving a void at the top, as much as 25%.

6) INSTALLATION BLOWING TECHNIQUE: First insert the reducer nozzle into the bottom hole and turn on the machine. The insulation will begin filling the cavity and progressing upwards towards the top of the cavity as far as it can. When the machine can no longer blow additional insulation into the wall the sound of the machine will lower noticeably. Quickly turn off the machine to keep material blockage from developing in the hose. Remove the nozzle and reinstall into next upper hole and continue filling the wall cavity.

NOTE: many older balloon frame open cavity style home’s have sidewalls that can be filled by inserting the hose into the sidewall cavities from the attic, lowering the hose from the top to the bottom and retracting the hose as each cavity fills up with insulation.

SPECIAL NOTE: CELLULOSE INSULATION DOES NOT REQUIRE USING A VAPOR BARRIER UNLESS THE ROOM OR BUILDING CONTAINS DEVICES GENERATING HIGH AMOUNTS OF MOISTURE INTO THE AIR CONTINUOUSLY SUCH AS WASH BAYS, STEAM EQUIPMENT, SAUNAS OR SWIMMING POOLS AREAS WITH LIMITED AERATION.

The above is the best advice you can offer your customer.....**BECOME AN EXPERT!**