



Retrofitting Existing Sidewalls with GreenFiber Insulation – Contractor Work Instructions

Scope

The following instructions are for contractors for the purpose of retrofitting existing sidewalls with GreenFiber insulation. These instructions are designed for use with GreenFiber's INS760LD or INS735 products for installation in sidewall cavities. Follow the sidewall coverage charts on the bags to assure that the proper amount of insulation is installed.

Before Installation

Retrofitting any part of a home's envelope will cause changes in air, heat and moisture flow. Contractors must understand how this installation will impact the house, i.e., ventilation and combustion air requirements. Examine both the inside and outside of a home to determine areas that are inappropriate for installation. For example:

- Do not insulate any home that has active knob and tube wiring.
- Where moisture related problems are evident, the source of the problems must be determined and corrected before proceeding.
- Do not install insulation in stud runs where heat-producing devices such as an unprotected chimney, a fireplace, etc. might cause severe overheating.
- Building assembly details such as balloon framing, fire blocking, pocket door connections, etc. must be taken into consideration when blowing GreenFiber Insulation into a house.

Application

There are two basic techniques (Two-Hole or Double-Blow Method and One-Hole Tube Fill Method) used to fill existing, enclosed sidewall cavities. These techniques can be performed from either the exterior or interior of a home.

Required Equipment:

- Insulation blowing machine capable of at least 2.9 psi
- ¼-inch fiberglass rod
- Hose clamps
- Utility knife
- Wood, plastic, cork or Styrofoam plugs
- Drill with 2 to 3-inch hole saw

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- 50-100 ft. of 3-6 inch inside diameter ribbed hose
- 1 to 1½ -inch reducer nozzle
- 12 ft., 1 to 1½-inch inside diameter, hose
 - o Best practice: 1 to 1½ - inch hose will match sturdiness of a thin wall irrigation hose
- Note: When connecting hoses, a gradual reduction from the 3-6 inch hose, to the 1-1½ inch hose will yield the best results.

Two-Hole or Double-Blow Method

The two-hole or double-blow method is the most frequently used procedure for installing loose-fill insulation in sidewalls of existing homes. This method allows air pressure to escape from the upper hole while filling the cavity from the lower hole.

Instructions for Two-Hole or Double-Blow

1. Remove exterior siding to drill holes wherever possible to avoid potential damage/appearance defects to the exterior of the house.
2. Drill a hole between two studs approximately 2.5 to 3 feet up from the bottom plate. Drill a second hole approximately one foot below the top plate in the same stud run. On a multi-story home, repeat this process on each floor.
3. Drill holes approximately 2-inches in diameter through sheathing if siding is removed. A 2-inch diameter hole enables directional application.
4. Using a hose clamp, attach a 1-inch reducer nozzle to the insulation blowing machine hose.
5. Adjust air pressure to accommodate wall installation and nozzle size. This will ensure proper compacting of insulation and prevent settling in the cavity.
 - a. Air pressure adjustment will vary depending on machine type and condition. More air pressure is required for sidewall installation than attic installation. Contact the machine manufacturer for the correct settings.
6. Insert the nozzle into the bottom hole first and turn on the blowing machine. An increase in back pressure causes the blower to strain and alerts the installer that the cavity is filled and ready for compaction.

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7. When material is no longer flowing through the hose, visually ensure the cavity is completely filled. Move the nozzle to the next hole in the stud cavity. Continue this process until each stud run in the wall is filled.
8. Fill the holes using wood, plastic, cork or Styrofoam plugs. Replace the siding if removed. If siding was not removed, use exterior-grade spackle to cover the plugs.
8. To complete the sidewall application, the tube is slowly withdrawn from the cavity, allowing the insulation to compact from top to bottom. When the tube reaches the bottom of the cavity, the tube is turned downward to compact the insulation in the bottom section of the cavity.
9. Fill the drilled holes using wood, plastic, cork or Styrofoam plugs. Replace the siding if removed. If siding was not removed, use exterior-grade spackle to cover the plugs.

One-Hole Tube Fill Method

The one-hole tube fill method is recommended in some state Weatherization Assistance Programs for the retrofit of sidewalls. When performing Weatherization Assistance Program work, follow the instructions below.

Contact your GreenFiber technical representative if you have questions regarding coverage, equipment or application at 800.228.0024.

Instructions for One-Hole Tube Fill Method

1. Remove a section of exterior siding and drill a single 2 to 3-inch diameter hole through the sheathing approximately one foot from the bottom of the wall.
2. Using a hose clamp, attach the 1 to 1½ - inch reducer nozzle to the insulation blowing machine hose.
3. Using a hose clamp, attach the 12 ft., 1 to 1½ - inch inside diameter hose to the end of the reducer nozzle.
4. Using the utility knife, cut the end of the smaller 12 ft. hose on a diagonal to facilitate snaking behind wiring and plumbing.
5. Insert cut end of the tube into the 2 to 3 -inch drilled hole and feed to within 6-inches of the top of the stud cavity. Note any fire stops or other obstructions. Drill additional holes as needed if obstructions are present.
6. Turn the blower on and fill insulation to the top of the cavity. The insulation will settle and fill the cavity from bottom to top.
7. When the cavity becomes filled, the insulation begins to compact at the top. An increase in the back pressure causes the blower to strain and alerts the installer that the cavity is filled and ready for compaction. (CAUTION: Too much air pressure will cause the drywall material to pull away from the framing.)

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