



Insulate Your Ductwork

Save 20 - 30% on Heating & Cooling Bills

Improve Discharge Temperatures from Registers by 10-15°

Your home's duct system carries the air from your furnace and central air conditioner or heat pump to each room. These ducts are typically made of sheet metal, fiber glass, or other materials that easily conduct heat. Ducts are also usually located in unconditioned spaces such as attics, crawlspaces, garages, or unfinished basements. Due to extreme winter and summer temperatures in these spaces, 10 to 30 percent of the energy used to heat and cool the air in your home is lost to conduction through the duct surfaces. Unfortunately, many duct systems are poorly insulated, or not insulated at all.

Poorly insulated ductwork results in hard to maintain temperatures in rooms served by long duct runs and can add hundreds of dollars a year to your heating and cooling expenses. In preparation for winter, to save money and more easily maintain comfortable temperatures in your home, consider insulating your ductwork. This simple, do-it-yourself 'sweat equity' project could save you 20 to 30 percent on heating and cooling bills.

Use the following materials list and refer to the illustrated diagram and instructions on the reverse side to complete this simple project at home.

**Contact United Power's
Energy Management Team**

**303-659-0551
800-468-8809**



ENERGY STAR®, suggests these benefits for insulating your ductwork:

www.energystar.gov

- **Improved comfort.** Duct insulation minimizes conductive heat losses and gains, allowing supply air to be delivered closer to desired temperatures. In winter, leaks of heated air will be reduced in rooms supplied with long duct runs. This can result in quicker recovery from night-time setbacks and a more consistent level of comfort throughout a house.
- **Lower utility bills.** The average homeowner spends over \$600 per year on heating and cooling. Duct insulation minimizes conductive heat losses and gains and reduces heating and cooling systems' operating time. This results in lower utility bills, making homes less expensive to operate.
- **Lower equipment cost.** Duct insulation can reduce space conditioning loads and, in some cases, allows for the installation of smaller, less costly heating and cooling equipment.

Tools Needed:

- Razor Knife
- Staple Gun
- Staples
- Ball of String
- Step Ladder
- Tape Measure

Safety First:

- Eye Protection
- Mouth & Nose Mask
- Long Sleeve Shirt & Pants
- Gloves

Materials List:

- Foil Faced Duct Tape**

Do not use fabric faced duct tape.

- 1/2" Polyisocyanurate Foam Insulating Sheathing**

Amber colored foam sandwiched between 2 foil sheets and is available in 4'x8' and 4'x10' sheets. Marketed under the Celotex Tuff-R® brand name. For more information visit www.PIMA.org.

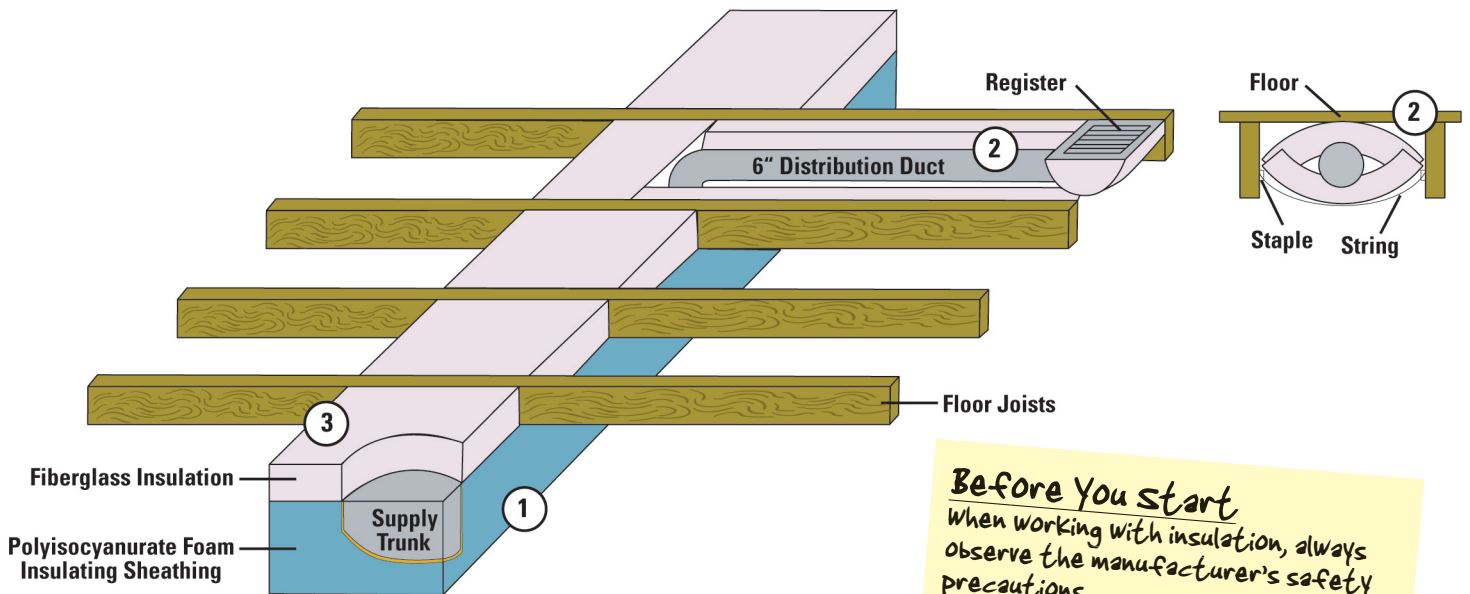
- Fiberglass Batts**

Faced with paper or plastic backing. The 3.5"x15" rolls work best. Commonly marketed under the Johns Mansville (yellow) and Owens-Corning (pink) brand names.



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Before You Start
When working with insulation, always observe the manufacturer's safety precautions.

You might want to defer crawl space projects until the autumn months when spider populations have reduced activity.

Three Easy Steps to Enjoy the Benefits of Insulated Ductwork

- ① Start by cutting the polyisocyanurate sheathing to wrap around the supply and return trunks' sides and bottoms. Tape the cut pieces of sheathing to the trunks and adjacent sheathing using the foil faced duct tape.
- ② Wrap the 6 inch round distribution ducts with fiberglass batts. Keep in place using staples and string. Zigzag the string back and forth across the length of the fiberglass insulation batt and staple it to the joists or underside of the floor. Wrap or stuff fiberglass insulation around the sheet metal "boot" that connects the 6 inch pipe to the register.
- ③ Cut the fiberglass batts to size and place on top of the supply trunks, between the floor joists.

If you have additional questions, please contact United Power's Energy Management Team at 303-659-0551