



Ducts in an Attic

Many times the most convenient place for ductwork is in the unconditioned attic. Though it is convenient it is not always the most efficient for your furnace or air conditioner. That is because the un-insulated ducts are pushing your conditioned air through unconditioned space. By the time the conditioned air reaches its destination it has usually lost most of its temperature or a lot of it has leaked out into your attic. That means in the winter your furnace must turn on more often to keep your home the temperature you prefer and the same goes for your air conditioner in the summer. Thus costing you more money to heat and cool your home.

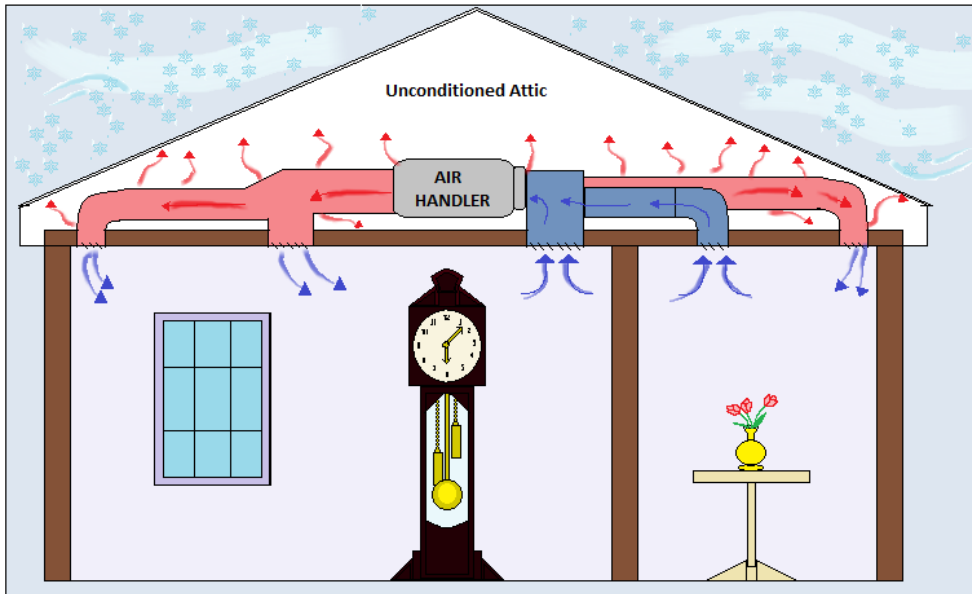
There are a couple of solutions to this problem. The first approach is to encapsulate the entire trunk line and duct work in 1" of closed cell spray foam. This not only insulates the trunk line from the brutally hot or cold attic space but it also prevents any of the conditioned air from leaking into the attic. Thus strengthening the air distribution to each room. This allows the furnace or AC to get the home to the desired temperature quicker which prevents over use.

The other approach to this issue is to seal the ducts with mastic and to add insulation to the ducts. Mastic is a special latex paint like application that is brushed on the seams and joints of the ducts. The mastic solidifies and seals the ducts. This prevents any air leakage. Once the mastic dries we install a thick layer of duct insulation to the trunk and side ducts. This insulation includes a radiant barrier which is used to reflect roof heat away in the hot seasons.

You can see in the diagram how each approach would operate under winter conditions. It would be the reverse temperatures for the summer months.

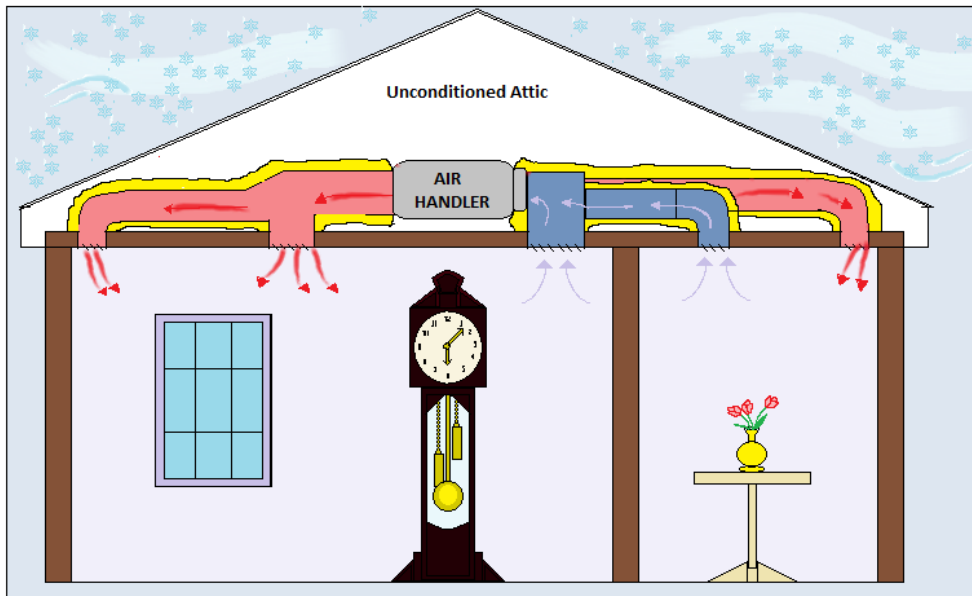
Unconditioned Ducts in Attic (During Winter)

Before



Ducts Encapsulated in Closed Cell Spray Foam

After



Ducts Sealed with Mastic and Re-Insulated

After

