

Joseph Lstiburek, Ph.D., P.Eng, ASHRAE Fellow

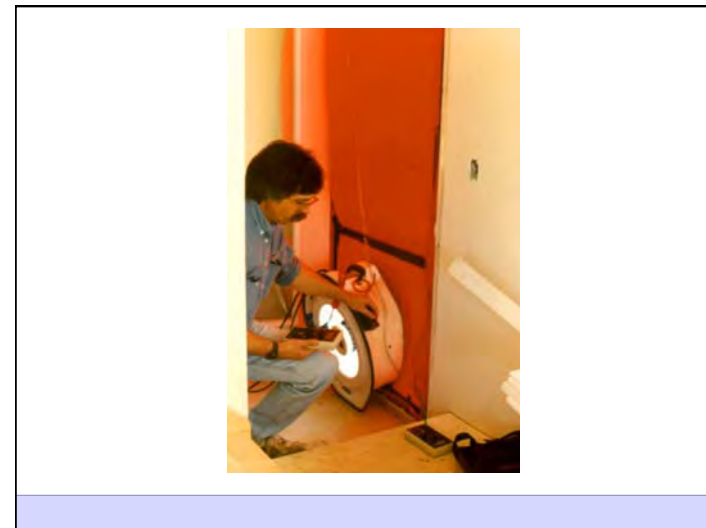
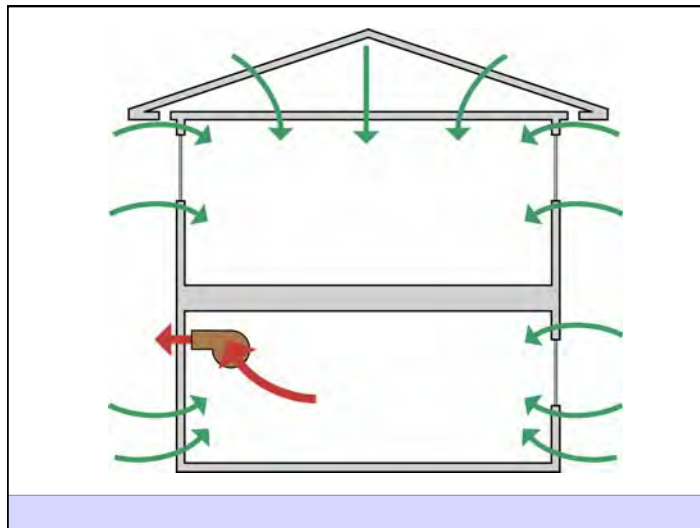
## Building Science

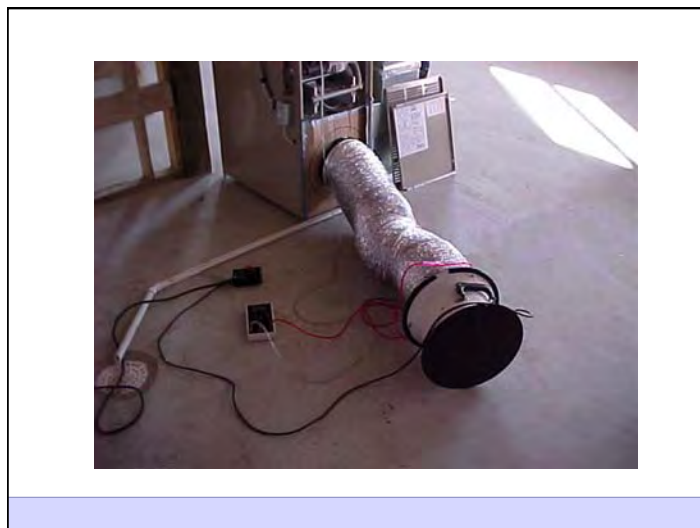
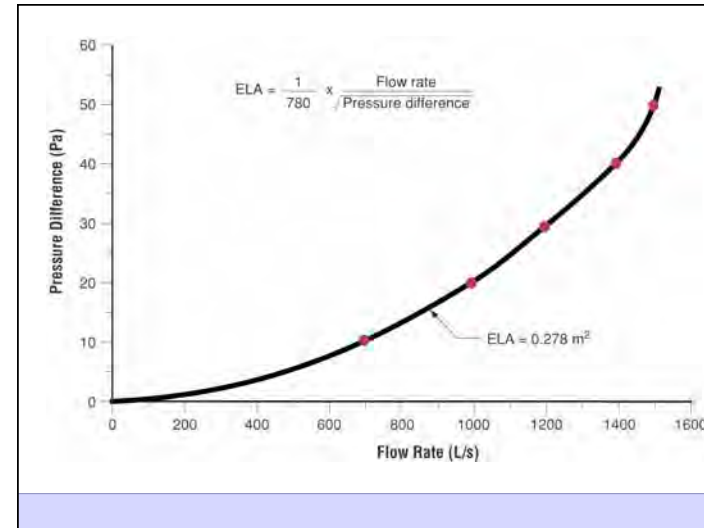
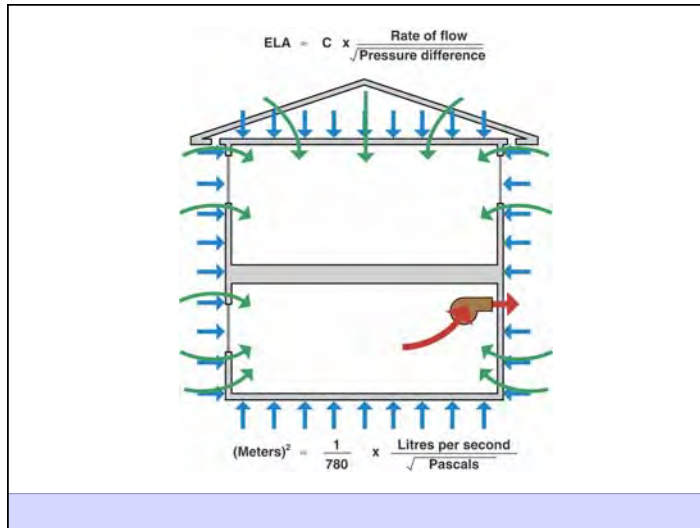
### HVAC

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### Air Barrier Metrics

Material	0.02 l/(s-m <sup>2</sup> )@75 Pa
Assembly	0.20 l/(s-m <sup>2</sup> )@75 Pa
Enclosure	2.00 l/(s-m <sup>2</sup> )@75 Pa





Duct Leakage Should Be Less Than 5% of Rated Flow As Tested by Pressurization To 25 Pascals

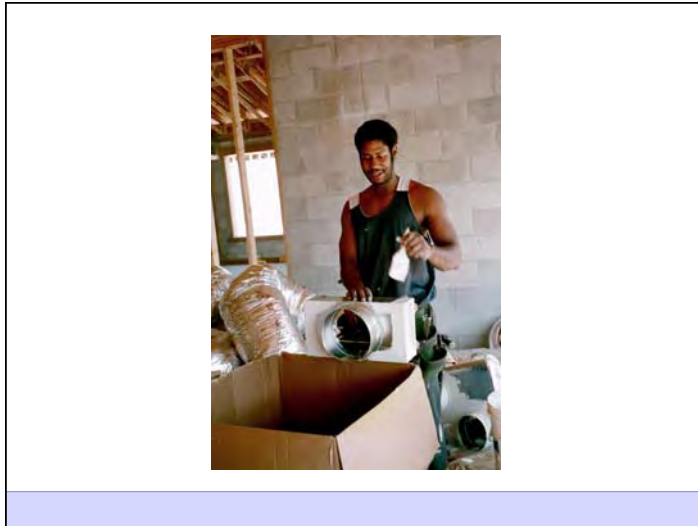


Figure 3.12  
**Ductwork and Air Handlers in Basements**

- No air pressure differences result in a house with an air handler and ductwork located in a basement if there are no leaks in the supply ducts, the return ducts or the air handler and if the amount of air delivered to each room equals the amount removed

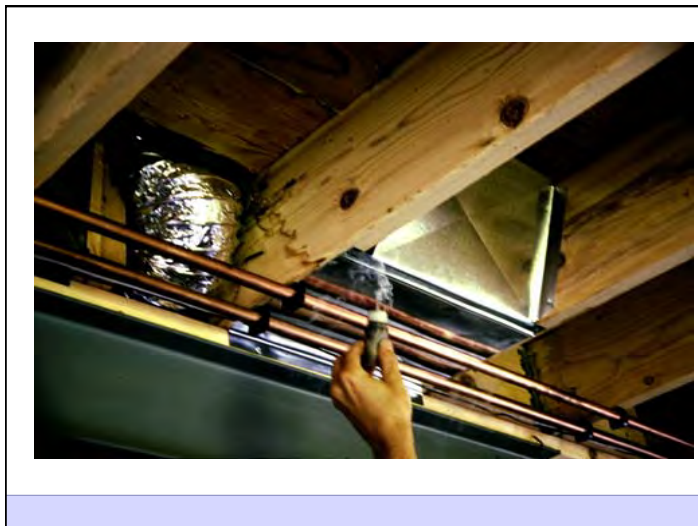
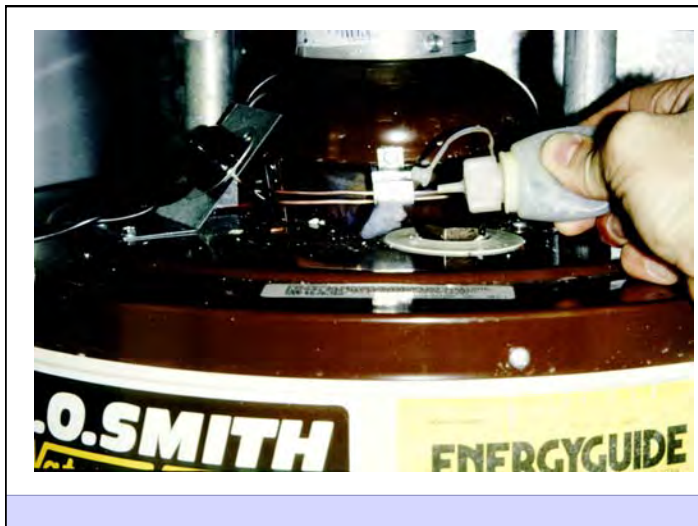
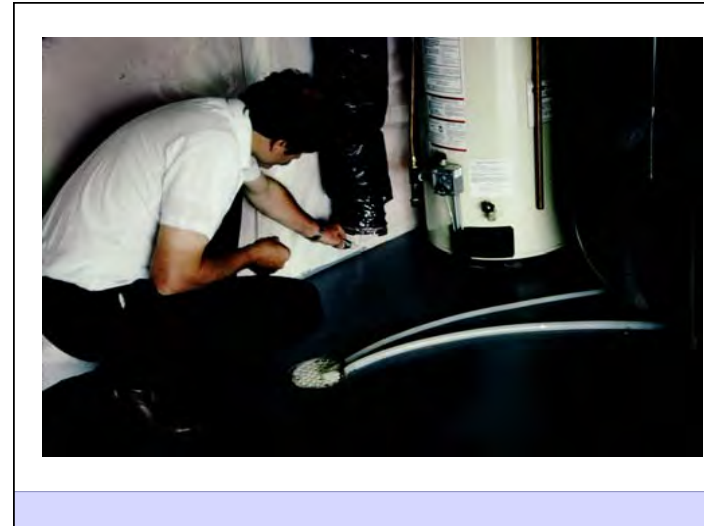
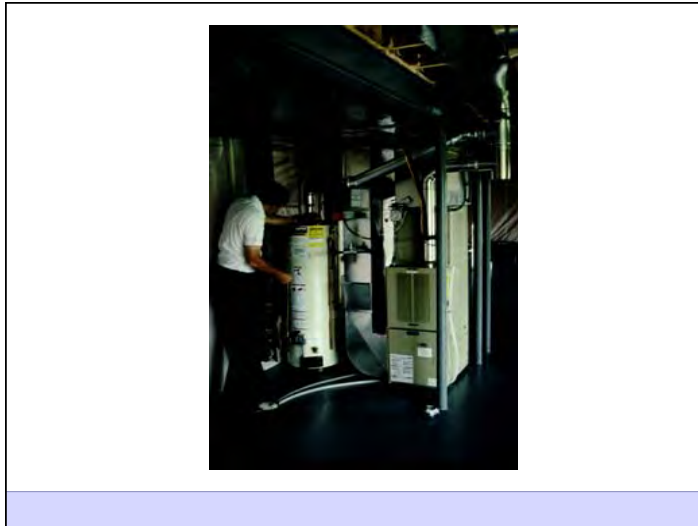
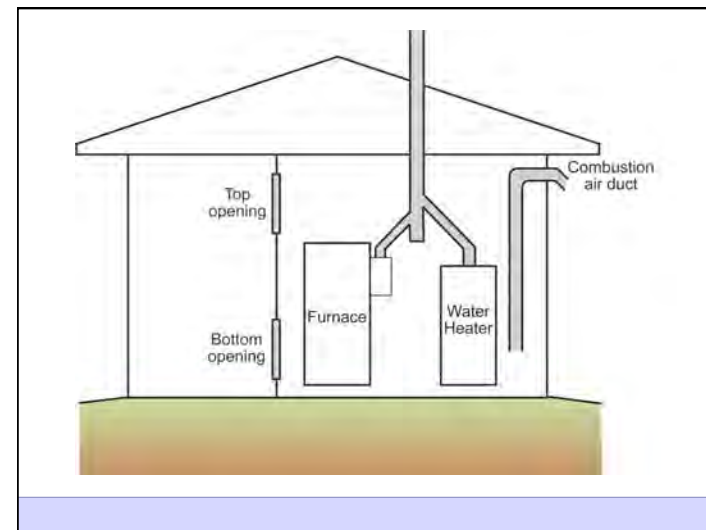
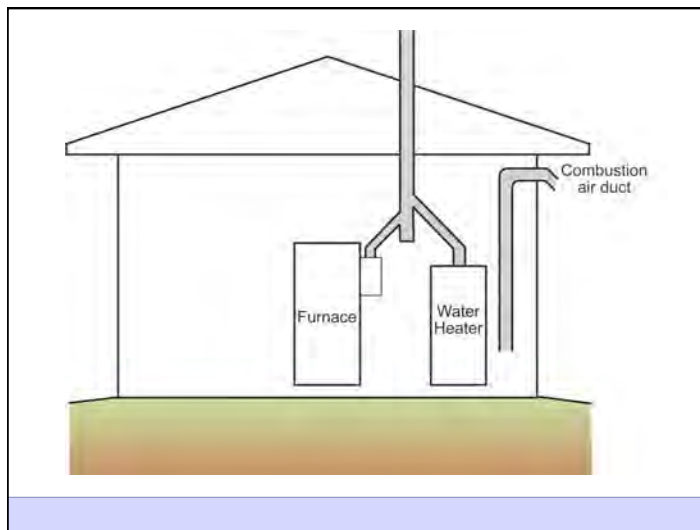
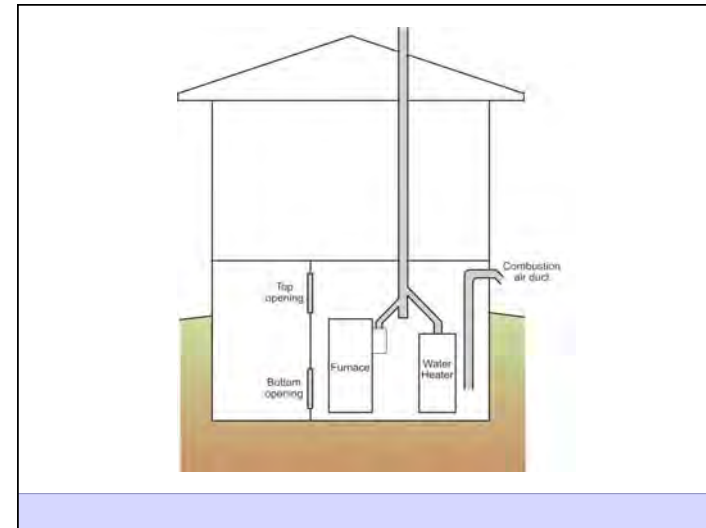
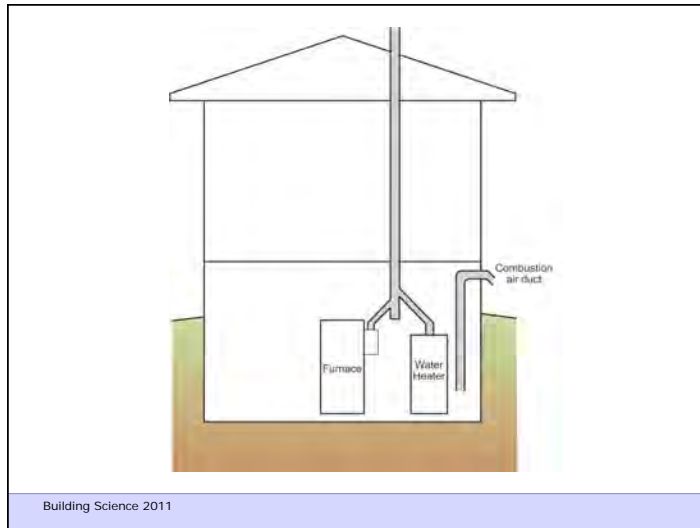


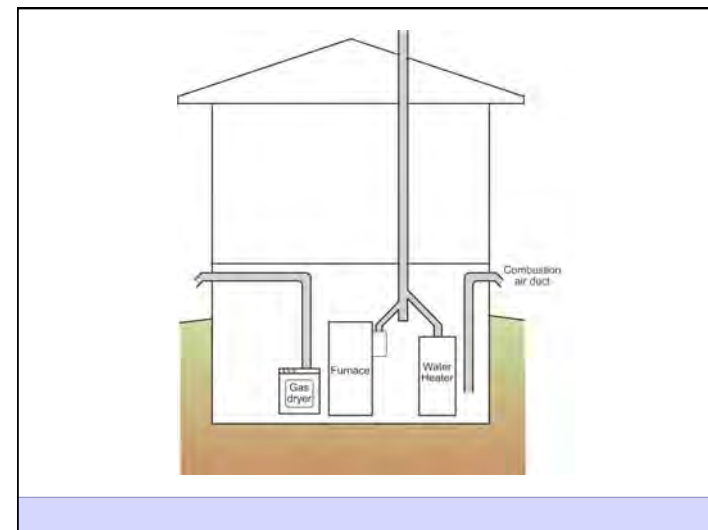
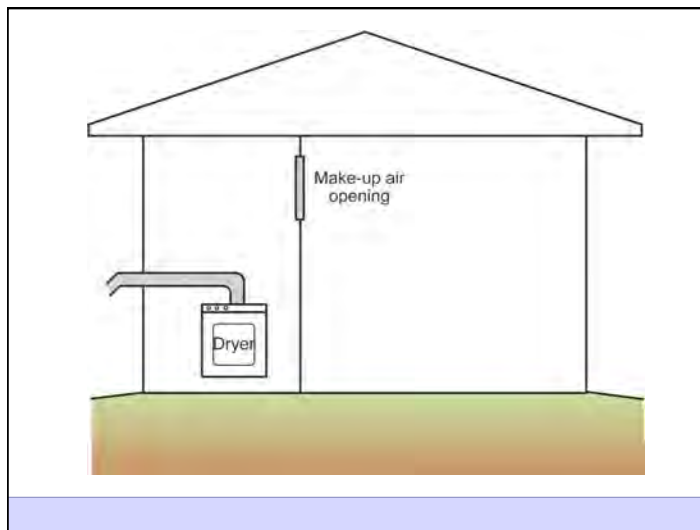
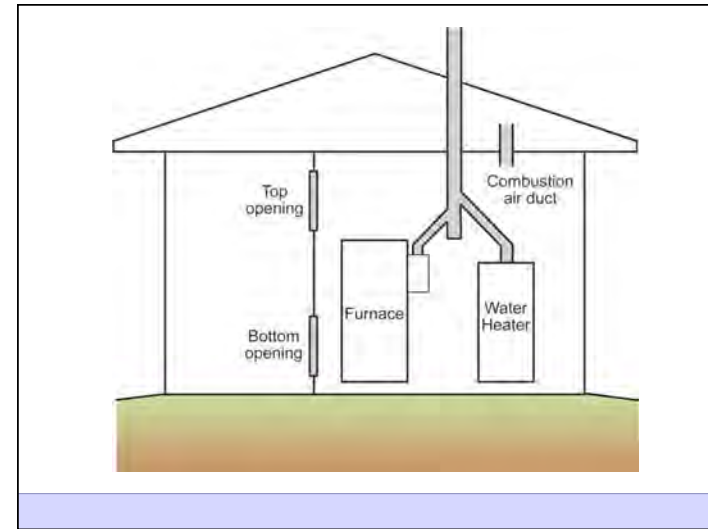
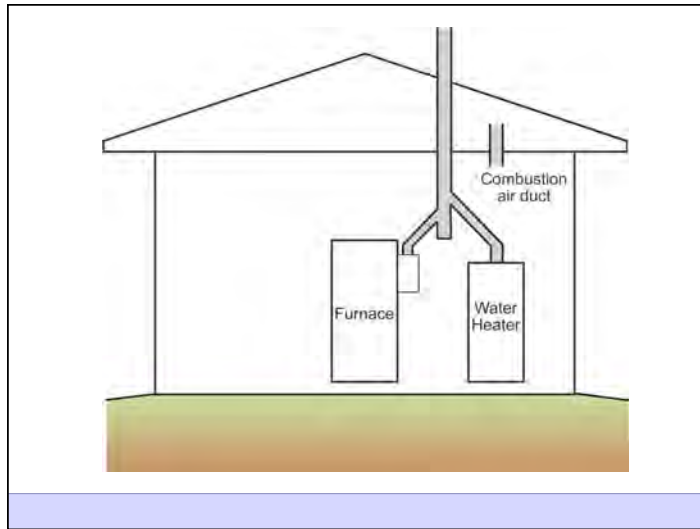
Figure 3.14  
**Leaky Ductwork and Air Handlers in Basements**

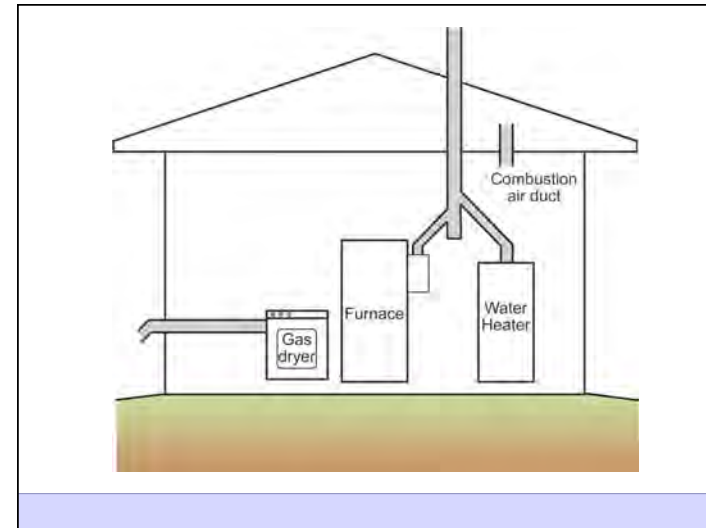
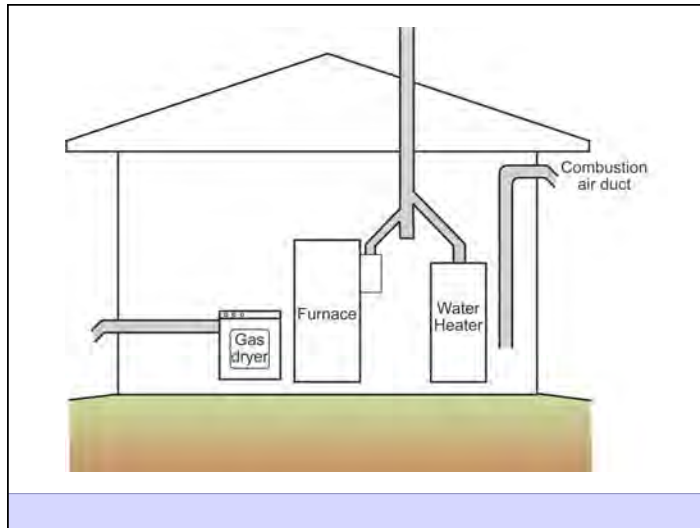
- Air pressurization patterns in a house with leaky ductwork in the basement



Code Compliant Combustion Air

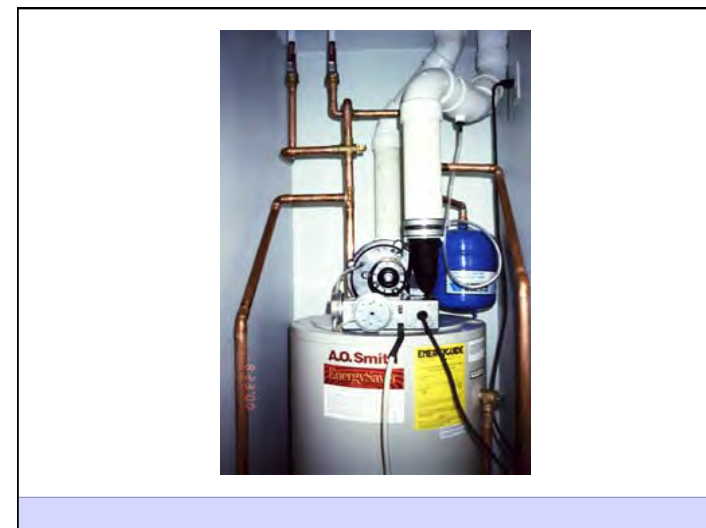




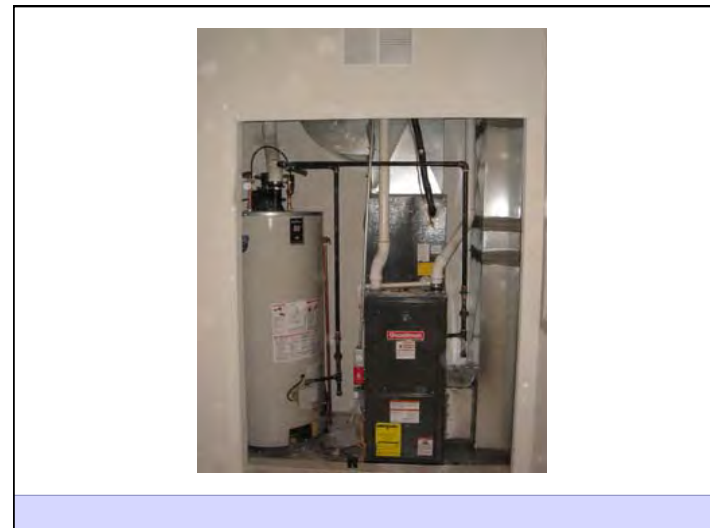
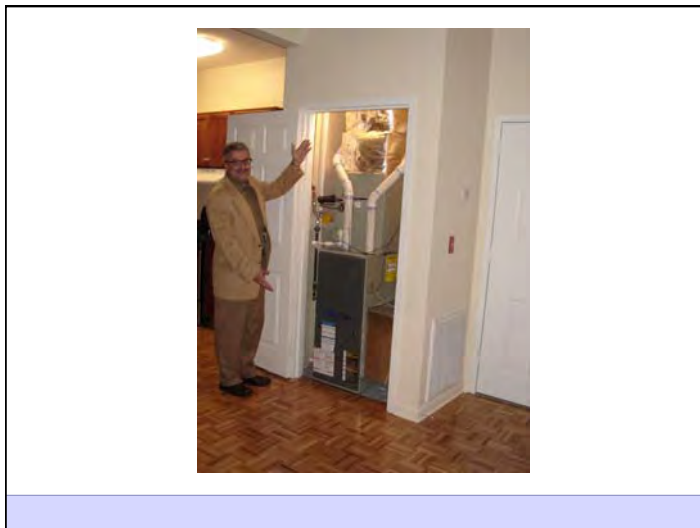
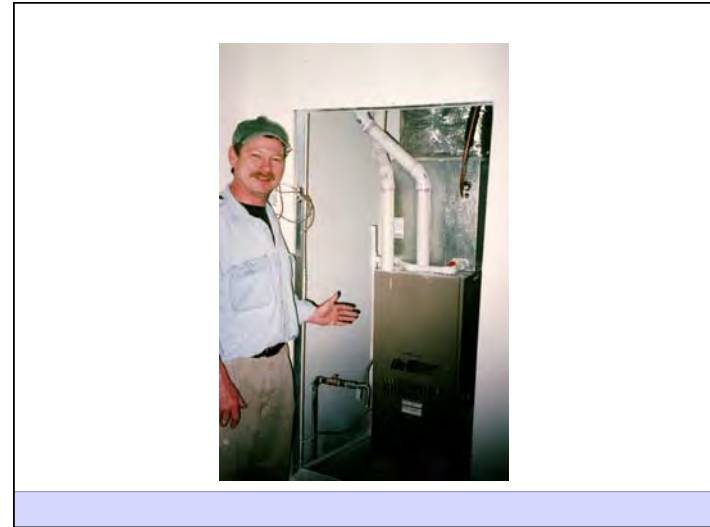


Sealed Combustion Appliances

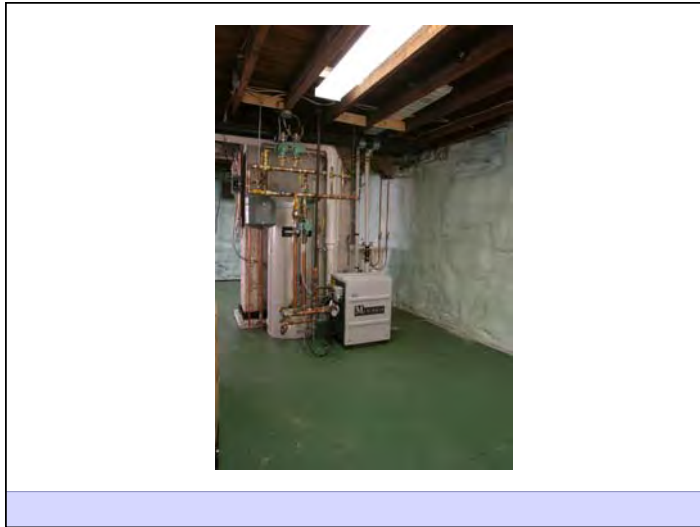
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Control Pressures

