

Check List for New Boiler for new and existing systems

The first 13 items listed below are done in order to assure that you have an efficient and reliable system.

1. Heat loads using Manual J by Air Conditioning Contractors of America (ACCA) will be done to make sure that the unit is the proper size. If unit is too large it will short cycle which can cause uneven temperatures, shorten the life of the unit and cost more to operate. If the unit is too small it will not heat adequately. See the Energy Star Web Site found at www.energystar.gov and the comfort institute web site found at www.comfortinstitute.org.
2. Heating and Air Conditioning contractor will guarantee 70-degree space temperature at the thermostat when the outside temperature is minus 10 Degrees F.
3. Contractor to do heat loads for each room to make sure that the amount of baseboard is correct to heat each room and insure even heat through out the home. On new construction baseboard radiation to be sized for each room with 140 degree water temperature.
4. On existing systems, contractor to add baseboard or other hot water equipment (if necessary) so that the returning boiler-water is 140 degrees F. or less. This insures that the boiler operates at 95% efficiency. If the boiler water returns to the boiler at a higher temperature the efficiency of the boiler is compromised.
5. Contractor to install new pressure relief, expansion tank, back flow preventer, and fill valve with fast fill feature.
6. Contractor to install purge valves (boiler drains) so that air can be bled from each return line from each zone.
7. Contractor to install isolation ball valves on either side of the pumps so that the pumps can be changed without draining and refilling the system which can take several hours.
8. Contractor to install PVC piping for boiler **exhaust and boiler combustion supply air**.
9. Boiler to use a high grade stainless steel heat exchanger.
10. Boiler with **aluminum** heat exchanger is not acceptable. Aluminum heat exchangers corrode rapidly if the PH is below 7. If the PH of the water is below 7 the warranty is invalid.

11. Boiler to have a low pressure drop through the boiler. This saves pumping energy and costs less to operate.
12. Boilers with heat exchangers that have a high pressure drop are not acceptable. Boilers that have a high pressure drop heat exchangers require larger and often times an additional pump. This costs more energy to operate.
13. Boiler to have and outdoor reset so that the boiler water becomes hotter when the outdoor temperature becomes colder. This increases the efficiency of the boiler.
14. If there is more than one zone the contractor to use European style primary, secondary pumping to save energy. An alternate method is to use zone valves with a variable speed pump that maintains a constant head pressure with all conditions.
15. Contractor to furnish Certificate of Insurance to prove insurance coverage.
16. Contractor to furnish a copy of a business license.
17. Contractor to check operation of boiler to make sure that it works properly. Manifold gas pressure and carbon monoxide in flue vent shall be checked.
18. Contractor to check amperage of pumps to make sure that pumps are pulling proper current.
19. Contractor will remove all old equipment and parts and will take care to work in a clean and neat manner. Tarps will be used when necessary to protect your home.

This checklist is for work being done at _____

Signed _____ Date _____

CONTRACTOR