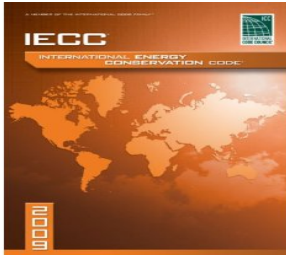




***Mechanical Inspections Guidelines  
One and Two Story Dwellings***

1. Obtain permits prior to commencing work.
2. Closet door to be a minimum 36''x 80''. Exception within a dwelling unit.
3. Seal undercut doors and any openings on doors.
4. 3 inches of working space on the sides and back of furnace, air handler or cooling coils.
5. Seal platform airtight.
6. All sealing must be mastic to ducts and equipment with approved U.L.Listed 181 tapes, mastics, gaskets, sealants.
7. Rigid gas line to extend at least 2 inches outside furnace cabinet.
  - a. Use approved gas shut off valve.
  - b. Gas flex connectors shall be a maximum of 6 feet in length.
  - c. Teflon tape can be used on gas pipe threads.
8. Combustion air ducts to extend a minimum of 6 inches above ceiling joist's with no screens on either end.
  - a. Combustion air openings to be within 12 inches from the enclosure and 12 inches within platform.
  - b. One opening required when obtaining combustion air direct from exterior of structure.
9. Venting systems to be sheet metal screwed to draft hood and all connectors shall be locked in place.
  - a. Vent pipe to be not less than 5 feet minimum.
  - b. Shall terminate with an approved flashing, storm collar and listed cap.
  - c. Venting systems can not run greater than a 45 degree angle. Horizontal run can not exceed 75% of vertical height. And maintain a 1 inch clearance to combustible material.
10. Condensate drain to be ¾ inch minimum and shall be discharged and collected to an approved plumbing fixture or disposal area. Insulate drain lines in any unconditioned area.No open drain vents in return, route secondary drains to conspicuous point of disposal and float switch can be installed on aux.drain pan.

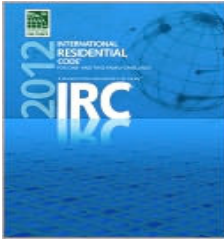


## ***Ductwork***

1. R-6 and R-8 flex ducts as per the *International Energy Conservation Code*.
2. R-6 with 14 seer minimum.
3. Trade off R-6 with 13 seers minimum, provided you meet 15% or less glazing.
4. R-6 with 13 seer minimum, when upgrade coils or furnace meets or exceeds A.R.I. reference but must be provided upon inspection.
5. If replacing ductwork only must be R-8 minimum.
6. If replacing equipment only no ductwork, equipment may be 13 seers.
7. All joint's of duct systems shall be made substantially airtight by means of tapes, mastics, liquid sealants, gasketing or other approved closure systems. Closure systems used with rigid fibrous glass ducts shall be listed and labeled in accordance with U.L.181.
8. Flex ducts shall be supported at manufacturer's recommended intervals, but at no greater distance than 5'. Maximum permissible sag is ½" per foot of spacing between supports.
9. Vertically installed ducts shall be supported at a max of 6' on center, flex ducts may not be used for vertical risers serving more than two stories.
10. Sheet metal sleeves used for joining two sections of flex ducts shall be of metal and a minimum of 4 inches.
11. Starting collars connected to fibrous glass duct systems must be sealed with approved air sealants and secured with a mechanical tie.
12. Duct test required on all new construction R-3 group occupancies.

## ***Condensing Units***

1. Condenser pad or slab must extend a minimum of 3 inches above grade level.
2. Fuse or breaker disconnect to match condenser rating on manufacturers dataplate.
3. Low voltage control wiring must be in an approved raintight conduit for exterior use.
4. A 120 volt receptacle outlet shall be located at the same level and within 25 feet of equipment and shall not be connected to the load side of the means of disconnect.
5. Armaflex refrigerant piping insulation shall be a minimum of R-3.
6. Working clearances as per manufacturers' installation instructions.
7. All HVAC equipment shall be permanently identified as to which area it serves.



***Mechanical Inspection Guidelines  
Attic Applications***

1. Obtain permits prior to commencing work.
2. All Heating and Cooling equipment and appliances installed in an attic space shall be provided with a permanent or foldaway ladder.
3. Passageways shall be unobstructed and maintain a height of 30 inches minimum and not less than 22 inches wide.
4. Equipment shall not exceed 20 feet from the opening to the front of the appliance at the entry provide a switch to illuminate the catwalk and hvac service side.
5. Catwalks to be a minimum of 24 inches wide and shall be at least ¾" thickness if 24" on center and 5/8" thickness if 16" on center.
6. Rigid gas line to exit furnace cabinet at least 2 inches minimum.
7. Gas sediment trap shall be installed downstream of the appliance shut off valve.
8. Gas shut off valves shall be installed in the same room as the appliance and shall be within 6 feet of the appliance.
9. Gas appliance connectors shall not exceed 6 feet in length.
10. Venting system to be secured with sheet metal screws to draft hood connection only and maintain at least a 1 inch clearance to combustible materials.
11. Venting systems not to exceed 45 degree's angle and horizontal run not to exceed 75 % of vertical height.
12. Venting must maintain a minimum of 5 feet from equipment.
13. Attic spaces containing gas fired furnaces must be ventilated for combustion air.
14. Secondary drain pans required for any equipment in the attic space, second level or above a ceiling.
15. Secondary drain pans shall be protected by an overflow switch that will shut off the equipment prior to overflow of the pan or shall be connected with a secondary drain line to a conspicuous space that will alert occupants in the event of stoppage in the primary drain.
16. Secondary drain pans must be a minimum of 1 ½" deep 3 inches larger than the equipment on all sides and shall be a minimum of 24 gage galvanized metal.
17. Primary condensate drains shall terminate at an approved plumbing fixture or approved location where it will not cause a nuisance.
18. Primary condensate drain lines shall be insulated in any unconditioned space or above ceilings.
19. Supports located inside of the pan to support the appliance or equipment shall be water resistant.
20. Refrigerant piping insulation shall be a minimum of R-3.

