



# TOWN OF RIDGEFIELD

Building Department

## Combustion Air Requirements

**ALL FUEL BURNING APPLIANCES SHALL BE PROVIDED WITH A MEANS FOR COMBUSTION AIR UNLESS THE APPLIANCE IS A DIRECT UNIT INSTALLED PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS. ALL PLANS SHALL INDICATE THE APPLIANCE INFORMATION AND METHOD OF COMBUSTION AIR**

All fuel burning appliances require 50 cubic feet of air for each 1000 BTU's of appliance. The air may be taken from the space the appliance (s) is/are located if sufficient or communicating air spaces provided a means of air transfer is available and the openings meet the criteria below

To determine compliance first calculate the total volume of the space with the following formula

Length \_\_\_\_\_ X Width \_\_\_\_\_ x Height \_\_\_\_\_ = Space volume of air \_\_\_\_\_

To determine the BTU's of the appliance(s) use the formula below

BTU's of appliance \_\_\_\_\_ x 50 \_\_\_\_\_ /1000 \_\_\_\_\_ = required volume in cubic ft

The volume of air must be equal to or less than the space volume air. If the space volume is less than the appliance requirement than not enough combustion air is provided and a mechanical means of combustion air is required.

### Air transfer opening calculations for communicating air spaces

Appliance BTU \_\_\_\_\_ x 1 sq. Inch = sq. Inches of opening required  
1000

Connected spaces require (2) openings .

One opening to be located 12" from the floor and the other to located 12" from the ceiling. Each opening shall have a clear opening equal to 1 sq. inch per 100 BTU's but not less than 100 sq. inches

Metal louvers are 75% efficient, wood louvers are 25% efficient: use the calculations below for the type of louver used.

Metal \_\_\_\_\_ sq. inch of the opening / .75 = \_\_\_\_\_ required louver size in sq. inches

Wood \_\_\_\_\_ sq. inch of the opening / .25 = \_\_\_\_\_ required louver size in sq. inches