

5. Fresh Air must be ducted from Outside to return Air of Forced Air Heating for distribution.

- a) Ventilation air duct is connected not more than 15 ft., nor less than 10 ft. upstream of the heating appliance, unless a flow control device is used.
- b) Duct size for Fresh Air intake to RA. Choose one:
 - Rigid Duct. 4"Ø minimum. Must be insulated & vapour barriered for full length, or
 - Flex Duct. 5"Ø minimum. Must be insulated and vapour barriered for full length.

6. Forced air heating system fan is set to run continuously.

Forced air heating system is ducted to supply air to every bedroom and any level without a bedroom.

- 7. Heated Crawlspace is present, (choose one). Area of CS: N/R Tfr Grille min. area: N/R**
- Minimum of one (1) RA grille located in the crawlspace, connected to F/A heating appliance
 - Transfer Grille to adjacent floor + S/A outlet in crawlspace (from heating appliance).
 - Transfer Grille to adjacent floor + Exhaust from crawlspace into Principal Ventilation System (CEV)
 - Two (2) Transfer Grilles to adjacent floor
 - Transfer Grille to adj. floor + Exhaust Fan (See table above). Controlled by dehumidistat or timer.

Make-Up Air Requirements

1. NAFFVA (Naturally Aspirated Fuel Fired Appliance) present in Dwelling Unit? (per sentence 9.32.4.1)

- No. Omit Steps 2 & 3.
- Yes. Proceed to Step 2.

2. Exhaust Appliance present which exceeds Box (C) Air Volume (1/2 AC per hour)

- No such appliance. Omit Step 3.
- Yes. Commit to Depressurization Test. (See Caution, TECA Ventilation Manual Page 24).
- Yes. Proceed to Step 3.

3. Use Active Make-Up Air for Exhaust Appliance. (Choose (a) or (b) below.

Make-Up Air Fan required:

Fan Make: Fantech Model: FG 12 Installed Exhaust Appliance CFM 545
 Duct size: 12 inches MUA is electrically interconnected with large volume exhaust fan: Yes
 Fan location: Crawlspace Fan ducted to: crawlspace
 Make-Up Air Fan CFM 600

a) Active Make-Up Air delivered to an Unoccupied Area first (not directly to room containing the appliance)

====> i) Tempering Required per 9.32.4.1(4)(a):

Show calculation how make-up air will be tempered to at least 34°F (1°C) before entering unoccupied area.

$$\frac{\text{Make-up Fan CFM (600)} \times 1.08 \times (34^\circ\text{F} - (24.8^\circ\text{F})) \text{ Winter Design Temp this area}}{3412 \text{ BtuH/kW}} = 2 \text{ kW Duct Heater}$$

ii) Transfer Grille Required. Size 1 sq. in. gross area per 2 CFM.

Transfer Grille size: 300 sq. inches Location: Kitchen kick space

iii) Additional tempering required per 9.32.4.1(4)(b) before air transferred to occupied area.

Show calculation and describe how make-up air will further be tempered to at least 54°F (12°C).

$$\frac{\text{Make-up Fan CFM (600)} \times 1.08 \times (54^\circ\text{F} - 34^\circ\text{F})}{3412 \text{ BtuH/kW}} = 4 \text{ kW Heat from Unoccupied area required to raise temp by } 20^\circ\text{F}$$

Tempered by: Crawlspace heat

or b) Active Make-Up Air delivered to an Occupied Area. Tempering Required.

Show calculation how make-up air will be tempered to at least 54°F (12°C).

$$\frac{\text{Make-up Fan CFM (0)} \times 1.08 \times (54^\circ\text{F} - (24.8^\circ\text{F})) \text{ Winter Design Temp this area}}{3412 \text{ BtuH/kW}} = \text{Duct Heater}$$

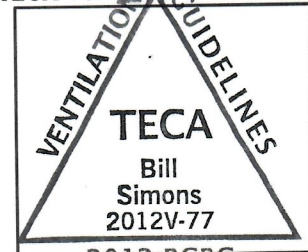
NOTES: Kitchen hood fan vented to manufacturers specifications

Installer Certification:

I hereby certify that the design and installation of the ventilation system complies with the 2012 BC Building Code, Section 9.32, 2014 & 2015 Amendments

Date September 7, 2022
 Print Name Bill Simons
 Signature [Signature]
 Company B.R. Ventilation Ltd.
 Phone 250-812-8314

2012 TECA Ventilation Certification Stamp



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