



**RESIDENTIAL VENTILATION USING  
SECTION 9.32 OF THE  
2012 ONTARIO BUILDING CODE  
manual**



# **RESIDENTIAL VENTILATION USING SECTION 9.32 OF THE 2012 ONTARIO BUILDING CODE**

First Edition (2019 Edition)

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Heating, Refrigeration and Air Conditioning  
Institute of Canada

# NOTES

# FOREWORD

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# PURPOSE

The Residential Mechanical Ventilation Manual 2012 Ontario Building Code 9.32 is intended to instruct members of the heating, ventilating and air conditioning industry in the proper design and installation of residential mechanical ventilation systems according to the Ontario Building Code 2012 Section 9.32.

The manual is meant for industry personnel who have a good basic understanding of HVAC equipment and ductwork installation. The manual does not cover depressurization testing, balancing, or ventilation equipment testing.



# SCOPE

- a) The materials in this manual are designed for Residential Mechanical Ventilation Systems, including those with and without heat recovery.
- b) The duct sizing section of this manual is designed for systems having air velocities and air volumes typical of residential ventilation systems and should not be used to size ducts for residential heating or cooling systems.
- c) This manual is not intended to be used in designing, installing or commissioning commercial ventilation systems.
- d) The worksheets incorporated within the manual are to be used for the purpose of designing, residential mechanical ventilation systems.
- e) The equipment specifications contained within this manual are generic in nature, and although they are representative of actual equipment, they may be considerably different when compared to a particular appliance in the field. **Therefore, the specifications supplied by the equipment manufacturer must be used for actual designs.**
- f) The codes and standards used to compile this manual are written in metric. HRAI has included imperial units for the convenience of the participants.
  - i. In the case of volume conversions for Litres per second (L/s) to cubic feet per minute (cfm), HRAI has used a soft conversion of  $1 \text{ L/s} = 2 \text{ CFM}$ , which will provide reasonable accuracy in most situations. Participants should be aware that some jurisdictions may use a hard conversion, commonly  $1 \text{ L/s} = 2.118 \text{ CFM}$  or  $1 \text{ CFM} = 0.47 \text{ L/s}$ .
  - ii. In the case of pressure conversions for Pascals (Pa) to inches of water column (" w.c.) HRAI has used a soft conversion of  $250 \text{ Pa} = 1" \text{ w.c.}$  Participants should be aware that some jurisdictions may use a hard conversion,  $249 \text{ Pa} = 1" \text{ w.c.}$  Also, for the purpose of this document, water column has the same meaning as water gauge (w.g.).