

Technical Service Bulletin

Guidelines for venting through an unconditioned space

Buderus

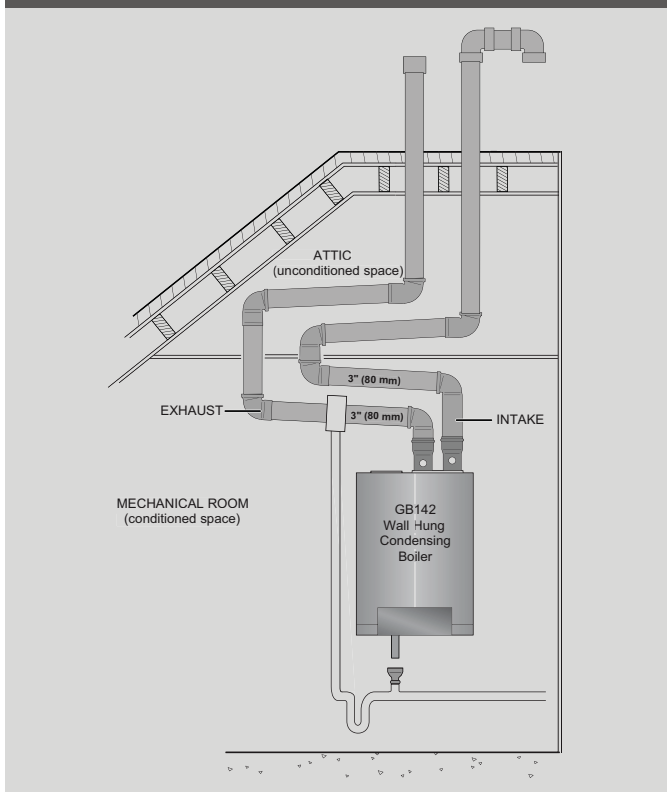
Introduction

- The purpose of this document is to provide installation guidelines for running vent pipe through an 'unconditioned space'.
- An 'unconditioned space' consists of an area isolated by enclosed portions and/or doors where the environment is not conditioned in regards to temperature and humidity. Examples being unheated attics, crawl spaces or garages.
- Do not exceed the 'total vent length' requirement as specified in the 'Applications Manual GB142 Wall Hung Heaters'. See the following tables below for additional information.

Maximum Equivalent Vent Lengths		
Model	Maximum Equivalent Intake Length (ft)	Maximum Equivalent Exhaust Length (ft)
GB142/24, /30, /45	100	100
GB142/60	60	60

Unconditioned space example

Fig. 1



Friction Loss Equivalent for Fittings	
Fittings or Piping	Equivalent Length (ft)
45° Elbow	3
90° Elbow	5
Optional Concentric Vent Kit	3

- Refer to the 'Applications Manual GB142 Wall Hung Heaters' for general vent installation guidelines
- In the USA, all installations must comply with the current version of the National Fuel Gas Code - NFPA54 (ANSI Z223.1) as well as Federal, State and/or local requirements.
- In the Commonwealth of Massachusetts, the installation must comply with regulations relative to the Carbon Monoxide Regulations.
- In Canada, all installations must comply with the requirements of CSA B149.1 or B149.2 as well as local codes.
- It is the responsibility of the homeowner and/or contractor to perform an annual inspection of the exhaust piping to ensure there are no obstructions or blockage.

Venting Guidelines

- Vent piping must be pitched toward the boiler at a minimum of $\frac{1}{2}$ " per lineal foot for appropriate condensate drainage.
- Vent piping in the 'unconditioned space' must be insulated by either wrapping the exhaust vent pipe in insulation or building an insulated chase. Insulation value of 1" minimum wall thickness is recommended. It is not necessary to insulate the combustion air piping.

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