

TECHNICAL INFORMATION COMMUNICATION



**United
Technologies**

Building & Industrial Systems

Quality and Continuous Improvement

Number: TIC2014-0010

Date: 9/2/2014

Title: Residential Gas Furnace Application Guidelines

Product Category: Gas Furnaces

Products Affected

Residential gas furnaces

Situation

The factory has become aware of installations in which gas furnaces were applied to dwellings that had half or less the heat load than the furnace output. This resulted in customer discomfort and in some cases frozen vent terminations.

Technical Information

Oversizing a furnace results in short run times and long off times. This causes temperature swings, frozen vent terminations and reduced product life. The factory is taking two steps to prevent future furnace misapplication. First, the installation instructions are being updated to state the following. Bold text highlights the new requirements.

'The furnace should be sized to provide 100 percent of the design heating load requirement plus any margin that occurs because of furnace model size capacity increments. **Gas furnaces are not to be used if the heating load is below 20,000 BTU.** Use Air Conditioning Contractors of America (Manual J **and S**); American Society of Heating, Refrigerating, and Air-Conditioning Engineers; or other approved engineering methods to calculate heating load estimates **to select the proper sized furnace.** Excessive oversizing of the furnace may cause the furnace and/or vent to fail prematurely, **customer discomfort and/or vent freezing.** **Failure to follow these guidelines will void the warranty.**

Second, the load calculation software, Comfort Builder, is being offered through 'wrightsoft'. Training is free with purchase of a 1 year subscription. The contact information is located below.

Comfort Builder Sales
800-225-8697 x3
sales@wrightsoft.com

Or visit:

www.wrightsoft.com/carrier for Carrier
www.wrightsoft.com/bryant for Bryant

Only trained and qualified personnel should design, install, repair and service HVAC systems and equipment. All national standards and safety codes must be followed when designing, installing, repairing and servicing HVAC systems and equipment. It is the responsibility of the Dealer to ensure local codes, standards, and ordinances are met.

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In addition, ACCA offers an online training class called Design for Quality Installation, which covers Manual J (load calculation) and Manual D (duct design). See the link below for more information.

<http://www.acca.org/education/residential-design/qi/>

References

ACCA Manual J

ACCA Manual S

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