



Super Quiet 80 Sound Test

Project Description and Methodology

- **PROJECT DESCRIPTION:**

Measure sound levels (dBA levels) in laboratory conditions of the Rheem/Ruud 80% AFUE gas furnace models GPN and GPP and other major competitive 80% AFUE gas furnaces with comparative specifications.

- **PROJECT OBJECTIVE:**

Determine comparative sound levels of currently available gas furnaces in the single stage mid-efficiency class and the new Rheem/Ruud GPN and GPP models.

- **TEST CONDITIONS:**

1. Location: Rheem Air Conditioning Division Research and Development Center Laboratory Qualified Reverberation Test Cell 10-5.
2. Measuring Devices: Norwegian Electronics Sound Analyzer Type 830 with B&K microphones Type 4144
3. Measurement Method: ANSI Standard S12.32-1990, Precision Methods for the Determination of Sound Power Levels of Discrete-Frequency and Narrow-Band Sources in Reverberation Rooms
4. Responsible Technician: 25 years of Environmental Chamber Technician and 16 years of sound testing and measurement experience.
5. Date: Monday, July 26, 2004.
6. Test Group Operating Condition: Overall Sound Emission Operating at Steady State.
7. Test Result Reporting: dBA Sound Levels Averaged Over One Minute

- **GAS FURNACE TEST SPECIFICATIONS CONTROLS:**

1. Furnaces normally used in three (3) ton system applications with both return and discharge air in the test room
2. Furnaces set at manufacturer's standard heating speed tap rate with minimum external static
3. Motor Horsepower range one-half to one-third horsepower
4. Input Btu per Hour Range: 60,000 – 80,000

- **FURNACE TEST GROUP:**

1. Carrier Model 58STA070-12
2. Coleman Model G8T08012UHA11A
3. Gibson Model KG6RA060C-12A
4. Goodman Model GMT070-3
5. Heil Model FBF075B12G1
6. ICP Model H8MPL075F16A1
7. Lennox Model G40UH-36A-070-03
8. Rheem Model GPN-07EAMER
9. Rheem Model GPP-07EAMER
10. Trane Model TUE060A936L1