



REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 100673528

Date: March 7, 2012

REPORT NO. 100673528CRT-001d

**TEST OF A FAISAL JASSIM TRADING CO
CENTRAL AIR TERMINAL, SHUT OFF,
SINGLE DUCT MODEL PITU 25, SIZE 10**

RENDERED TO:

**FAISAL JASSIM TRADING CO LLC
PO BOX 1871
DUBAI
UNITED ARAB EMIRATES**

| <u>Section No. *</u> | <u>Title of Test</u> |
|----------------------|---------------------------------|
| 7 | Primary Airflow Rate, cfm |
| 7 | Radiated Sound Power Level, dB |
| 7 | Discharge Sound Power Level, dB |

The results contained herein are for technical evaluation only and are applicable only to the specific specimens referenced herein.

The tests herein reported have not been performed at the request of the Air Conditioning, Heating and Refrigeration Institute (AHRI), and use of these findings in any advertising or other literature shall state therein that the test is not part of the AHRI Certification Program.

*AHRI Standard 880-2008

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GENERAL

Authorization to test the sample came from signed quote number 500356181. The sample was selected and supplied by the client and was received at the laboratories on February 15, 2012. The sample appeared to be in new, unused condition upon arrival.

TEST METHOD

The laboratory method used in conducting this series of tests was in accordance with Industry Standards AHRI 880-2008, "Performance Rating of Air Terminals" and ASHRAE 130-2008, "Methods of Testing Air Terminal Units".

The reference sound source used for this test was a calibrated Bruel & Kjaer Type 4204, which conforms to the above standard. Airflow was measured employing a nozzle metering station and a Dwyer Inclined Manometer Model No. 424-5.

| Equipment | Calibration Date | Due Date | S/N | Model | Brand | Asset |
|------------------------|------------------|-----------|---------|-------|----------------|-------|
| Microphone/Pre - DF | 5/5/2011 | 5/5/2012 | 2381159 | 4942 | Brüel and Kjør | E449 |
| Pulse Analyzer | 3/17/2011 | 3/17/2012 | 2519258 | 7539 | Brüel and Kjør | E446 |
| Reference Sound Source | 7/28/2009 | 7/28/2012 | 2036621 | 4204 | Brüel and Kjør | A230 |
| Manometer Incline | 3/21/2011 | 3/21/2012 | - | 424-5 | Dwyer | F166 |
| Manometer Incline | 4/5/2011 | 4/5/2012 | S39C | 424-5 | Dwyer | F167 |
| Microphone Calibrator | 3/17/2011 | 3/17/2012 | 2130586 | 4231 | Brüel and Kjør | A227 |

All static pressures in this report have been corrected to standard conditions.

TEST SPECIMEN

The test specimen consisted of a Faisal Jassim Trading Co. Central Air Terminal Shut Off, Single Duct Model PITU 25, Size 10. The terminal measured 20 inches in length by 17 ¾ inches in width by 13 ¾ inches in height. The inlet measured 10 inches in diameter while the outlet measured 18 by 14 inches. The sheet metal thickness measured 0.037 inches. The terminal was lined with ¾ inch thick fabric faced insulation. The base terminal was tested and rated without an inlet sensor.



RESULTS OF TEST – Model PITU 25, Size 10

Measurement of the minimum operating pressure at 100% of standard airflow.

| | |
|----------------------------------|--|
| <u>Rated Airflow</u> 1100 cfm | <u>Measured</u> 0.00 in. H ₂ O |
|----------------------------------|--|

For the Casing Radiated Sound Power Level Test, the terminal was mounted in accordance with paragraph 6.1.4.2 of AHRI Standard 880-2008 and Figure 12 of ASHRAE 130-2008.

| <u>Octave Band Center Frequency Hertz</u> | <u>Radiated Sound Power Level Lw dB re 10⁻¹² Watt</u> |
|---|--|
| 125 | 67 |
| 250 | 57 |
| 500 | 48 |
| 1000 | 37 |
| 2000 | 32 |
| 4000 | 27 |
| Air Volume in cfm | 1100 |
| Operating Pressure in. H ₂ O | 1.5 |

For the Discharge Sound Power Level Test, the unit was mounted in accordance with paragraph 6.1.4.1 of AHRI Standard 880-2008 and Figure 8 of ASHRAE 130-2008.

| <u>Octave Band Center Frequency Hertz</u> | <u>Discharge Sound Power Level Lw dB re 10⁻¹² Watt</u> |
|---|---|
| 125 | 74 |
| 250 | 68 |
| 500 | 64 |
| 1000 | 54 |
| 2000 | 52 |
| 4000 | 49 |
| Air Volume in cfm | 1100 |
| Operating Pressure in. H ₂ O | 1.5 |

*Sound Power Level data denoted with an asterisk has reached ambient levels in the test room or is determined by instrument limitations. Actual levels are less than or equal to the levels indicated.



CONCLUSION

The test method employed for this test employed no pass fail criteria and therefore discretion is left up to the client.

Dates of Tests: March 1 – 5, 2012

Report Approved by:

A handwritten signature in black ink that reads "Brian Cyr".

Brian Cyr
Engineer
Acoustical Testing

Report Reviewed By:

A handwritten signature in black ink that reads "James R. Kline".

James R. Kline
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Attachments: None