



# REPORT

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 100554696

Date: November 29, 2011

**REPORT NO. 100554696CRT-001c**

**TEST OF A FAISAL JASSIM TRADING CO  
CENTRAL BYPASS AIR TERMINAL,  
MODEL BPTU 20 WITH ATTENUATOR, SIZE 08**

**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 500338996. The sample was selected and supplied by the client and was received at the laboratories on November 8, 2011. 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 Bypass Air Terminal Model BPTU 20 with attenuator, Size 08. The terminal measured 17 1/2 inches in length by 11 3/4 inches in width by 11 3/4 inches in height. The inlet measured 8 inches in diameter while the outlet measured 15 3/4 by 12 inches. The sheet metal thickness measured 0.037 inches. The terminal was lined with matt faced insulation. The unit was not equipped with a flow sensor. The attenuator measured 16 inches wide by 12 inches high by 24 inches long.



**RESULTS OF TEST – Model BPTU 20 WITH ATTENUATOR, Size 08**

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

<u>Rated Airflow</u>	<u>Measured</u>
700 cfm	0.00 in. H <sub>2</sub> 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<sup>-12</sup> Watt</u>
125	46
250	38
500	37
1000	27*
2000	19*
4000	19*
Air Volume in cfm	700
Operating Pressure in. H <sub>2</sub> O	Minimum

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<sup>-12</sup> Watt</u>
125	50
250	41
500	35
1000	32
2000	28
4000	22
Air Volume in cfm	700
Operating Pressure in. H <sub>2</sub> O	Minimum

\*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: November 21 through November 29, 2011

Report Approved by:

A handwritten signature in cursive script that reads "Brian Cyr".

Brian Cyr  
Engineer  
Acoustical Testing

Report Reviewed By:

A handwritten signature in cursive script that reads "James R. Kline".

James R. Kline  
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Attachments: None