



SINCE 1896

REPORT

Intertek ETL SEMKO

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Date: September 17, 2007

Order No. 3130641

REPORT NO. 3130641CRT-002

SOUND INSERTION LOSS TESTING OF A DUCT LAGGING SYSTEM

RENDERED TO

**KINETICS NOISE CONTROL
6300 IRELANE PLACE
DUBLIN, OH 43017**

INTRODUCTION

This report gives the results of Sound Insertion Loss Testing of a Duct Lagging System. The lagging materials were selected and supplied by the client and received at the laboratories on August 31, 2007. The sample appeared to be in a new, unused condition.

AUTHORIZATION

Signed Intertek Quotation No. 500033591.

TEST METHOD

The tests were performed in general accordance with the American Society for Testing and Materials designation ASTM E1222-90 (Reapproved 2002), "Standard Test Method for Laboratory Measurement of the Insertion Loss of Pipe Lagging Systems".

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TEST EQUIPMENT / SET- UP

Noise was produced by a loudspeaker and a horn enclosed within a duct which was connected to one end of a 12 inch wide by 24 inch high 20 gauge duct. This duct extended into the Intertek 16,640 cu. ft. (470 cubic meter) reverberation room to provide a 25 foot long test sample. Average sound pressure levels were measured within the reverberation room for two conditions, one with the sound radiating from the bare duct and the other with the duct covered with the lagging system. The insertion loss of the installed lagging system is the difference of the sound pressure levels measured with the sound radiating from the bare and lagged duct, with an adjustment for changes for room absorption due to the presence of the duct lagging system. Test results were obtained in a series of one-third octave bands from 50 to 10,000 Hz.

Description	Serial Number	Calibration Date	Calibration Due Date
Bruel & Kjaer Type 2131 Digital Frequency Analyzer	945136	03/21/2007	03/21/2008
Bruel & Kjaer Type 4943 Condenser Microphone	2534059	06/1/2007	06/1/2008
Bruel & Kjaer Type 4204 Reference Sound Source	2036621	07/24/2006	07/24/2009

DESCRIPTION OF TEST SPECIMEN

The duct lagging over the 20 gauge duct system consisted of 2 inch thick, 5 pound per cubic foot fiberglass covered by KNM -200 AL Noise Barrier Material.

RESULTS OF TEST**Insertion Loss in dB (re: 20 μ Pa)****1/3 Octave Band
Center Frequency
Hertz**

50	3
63	5
80	7
100	9
125	9
160	10
200	14
250	18
315	23
400	25
500	28
630	29
800	33
1000	34
1250	35
1600	36
2000	37
2500	37
3150	37
4000	37
5000	37
6300	35
8000	28
10000	24

CONCLUSION

The test method employed for this test has no pass-fail criteria; therefore, the evaluation of the test results is left to the discretion of the client.

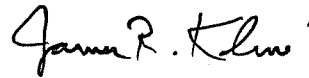
Date of Test: September 13, 2007

Report Approved by:

Report Reviewed By:



Brian Cyr
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Attachments: None