

Addition of Silencer

By adding a silencer to each return air line from the collectors, it will reduce the decibels to around 79dBa based upon your sound testing data.

Based upon your sound testing data , the average decibels is 89.6dBa

The silencer we are installing is model LRA 30”dia by 60” long will reduce to sound level to 79dBa. See attached table showing the insertion losses.

Based on the sound test data below shows the dBs for each frequency at the octave band.

Frequency	dB at Octave	Silencer Insertion Loss	reduced sound levels
63	80	8	72
125	91	13	78
250	81	22	59
500	83	29	54
1000	80	37	43
2000	70	37	33
4000	68	24	44
8000	51	19	32

The new averaged sound level around 79 dBa

Note: The silencer should be install close to fan as possible to reduce the self-generating noise from the silencer.

Note: based on the sound test data the background noise without the fan running was 58 dBa

SUBMITTAL

Submittal No 11-747
Project Name HARTNELL COLLEGE
Engineer:
Contractor:
Representative AVANIA ENVIRONMENTAL
Salesperson: BOB VENEZIA
Notes:

Date Mar 12, 2011
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Tag	Qty	Model	Size (WxHxL)	CFM	FPM	PD	Insertion Loss (dB)							
							63	125	250	500	1K	2K	4K	8K
	2	LRA	30x60 2@ 30dia.	20,000	4,074	0.83	8	13	22	29	37	37	24	19

Standard Rectangular Silencer Materials:
Casing: 22 gauge Galvanized Steel
Perforated Splitter: 24 gauge Galvanized Steel
Fill: Acoustic quality fiberglass

- Options Selected:**
- Polyethylene Liners
 - Mylar Liners
 - Fiberglass Cloth Liners
 - Inlet Flange
 -
 - Outlet Flange
 - Quik-Ship (5 days)
 - Quik-Ship (10 days)
 -
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C:\Documents and Settings\Jim Barath\My Documents\01 Measurements\Hartnell College\CMG1.CMG

