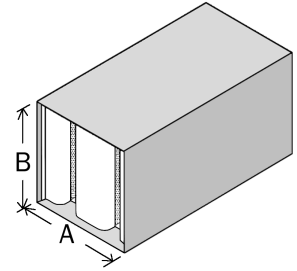


CERTIFIED PERFORMANCE DATA

HOW TO SPECIFY: EXAMPLE

32 X 21 RD-MV-F1 X 60
Duct Width Duct Height Silencer Model Silencer Length



Insertion Loss (IL)

LENGTH (inches)	FACE VELOCITY (feet per minute)	OCTAVE BAND - Hz/DYNAMIC INSERTION LOSS (dB)							
		63	125	250	500	1000	2000	4000	8000
36	- 1250	5	10	14	15	18	14	13	11
	0	4	8	13	14	17	15	13	11
	+ 1250	4	8	12	14	17	15	13	11
60	- 1250	7	13	22	24	27	20	16	13
	0	6	12	21	23	26	19	16	13
	+ 1250	6	11	19	22	26	20	16	13
84	- 1250	10	17	29	33	36	26	18	15
	0	9	15	28	31	35	24	19	16
	+ 1250	8	14	26	30	36	25	19	15
108	- 1250	12	21	37	41	45	32	21	17
	0	11	19	36	40	45	29	22	18
	+ 1250	10	17	33	38	46	30	23	18

+ : "forward flow"
where noise & airflow
move in same direction
(e.g. supply side)

- : "reverse flow" where
noise & airflow move
in opposite directions
(e.g. return side)

See pages 4.1 - 4.25 for selection information. DIL above 50dB may be limited due to noise flanking around the silencer or along the duct walls. If more than 50dB DIL is required, contact your local Vibro-Acoustics Representative or call 1-800-565-8401.

Pressure Drop (PD)

LENGTH (inches)	FACE VELOCITY (feet per minute) / Pressure Drop (in.w.g.)						
	500	750	1000	1250	1500	1750	2000
36	0.03	0.07	0.13	0.21	0.30	0.40	0.53
60	0.04	0.10	0.18	0.28	0.40	0.54	0.70
84	0.06	0.12	0.22	0.34	0.50	0.67	0.88
108	0.07	0.15	0.26	0.41	0.59	0.81	1.06

Acceptable (0 - 0.35")

Caution (>0.35")
Pressure Drop may be
too high for certain
applications

CROSS-SECTION SIZES*

"A" dimension (inches):

15-16
29-32
58-64
87-96
116-128
145-160
174-192
203-224
232-240

"B" dimension: ANY SIZE

Approx. weight
6.0 lbs/cu.ft.

Pressure drops are reported in accordance with ASTM E477 methods and are based upon IDEAL flow conditions (5 diameters of straight duct on silencer inlet and 10 on outlet). Less than ideal conditions will result in an increase in pressure drop due to System Effects. See Silencer System Effects Data on page 4.19.

Generated Noise (GN) @ 5 sq.ft. face area

LENGTH (inches)	FACE VELOCITY (feet per minute)	OCTAVE BAND - Hz/GENERATED NOISE (dB re 10 ⁻¹² watts)							
		63	125	250	500	1000	2000	4000	8000
ALL	- 1250	53	50	49	50	52	50	40	28
	- 750	50	43	42	41	41	34	22	26
	+ 750	51	39	35	33	37	33	23	26
	+ 1250	56	51	45	43	45	47	40	29

GN correction chart at right
must be used to correct GN
to other face areas.



FACE AREA (sq.ft.)	2.5	5	10	20	40	80
dB	-3	0	+3	+6	+9	+12

* To ensure a silencer
selection that matches the
ductwork dimensions, see
page 4.25 or 5.3.

THERMAL MECHANICS, INC.

715 GODDARD AVENUE, CHESTERFIELD, MO 63005

VOICE (636) 532-1110

FAX (636) 532-7318

EQUIPMENT SUBMITTAL

PRODUCTION ON HOLD FOR APPROVAL

Production is on HOLD and will not be released or scheduled until receipt of approved submittals noting any changes required

June 24, 2016

Includes: Sound Attenuators for AHU
Job Name: Webster Science Bldg.
Contractor: ICON Mechanical
TMI Ref #:



**By : Jim Fahrenhorst
-Representative-**

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: September 7, 2016

Attention: stl-cac@cannondesign.com

Contact Person / WTA Field Inspector:
Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mark Schaefer

Project No. WT 14127.01

☐

UPS

☐

Courier

☒

Email

Copies	No.	Description
1 PDF	238800M04	(Submittal No.'s) (R&B CxSRC)
		(Cannon #238800-007) - (Paric #15051-0199) - (WES #607)
		• Sound Attenuator

***Submittal Review Comments**

Provide erosion barrier/media protection as specified in section 238800 and as required to protect media.

c: Kelvin Patel
Kpatel@cannondesign.com

☐ Furnish as Submitted

☒ ***Furnish as Noted**

☐ Rejected

☐ Revise & Resubmit

☐ Reviewed

☐

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

WTASHOP - Webster ISB - 23 8800-007

From: STL-CAC <STL-CAC@CANNONDESIGN.COM>
To: 'Patrick Garner' <pgarner@wmtao.com>, WTASHOP <wtashop@wmtao.com>
Date: 8/30/2016 3:50 PM
Subject: Webster ISB - 23 8800-007
Cc: "Patel, Kelvin" <kpatel@CANNONDESIGN.COM>
Attachments: 238800-007 Sound Attenuator Product Data.pdf

Attached for review.

Melissa Pirtle

Construction Admin

CANNONDESIGN

1100 Clark Ave
St. Louis, Missouri 63102
T [314.425.8797](tel:314.425.8797) • M
cannondesign.com



77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0199

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 08/29/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Sound Attenuator Product Data

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☒ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	SENT VIA:	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☒ Other: Product data	☐ Separate Cover Via:	☐ Due Date:

Item	Package	Code	Rev.	Copies	Date	Description	Status
Submittal		238800-007	1		08/29/2016	Sound Attenuator Product Data	Submitted

NOTES:

CC:

Signed: _____
Devin Gates



Mechanical

LETTER OF TRANSMITTAL

TO: Paric Corporation

77 West Port Plaza #250

St. Louis, MO 63146

ATTN: Jason Szachnieski, Devin Gates

DATE: 8/23/16

JOB #: 5768

RE: Webster ISB

We are sending you

☒

Shop drawings

☐ Attached

☐ Prints

☐ Under separate cover

☐ Plans

☐ Samples

☐ Specifications

☐ Copy of letter

☐ Change order

☐ Other

COPIES	DATE	NO.	DESCRIPTION
1	8/9/16	238800-2.8-I	Sound Attenuators

These are transmitted as checked below:

☐ For signature

☐ For your use

☐ As requested

☐ For bids due

☒

For review and comment

☐ Approved as submitted

☐ Approved as noted

☐ Returned for corrections

☐ Prints returned after loan to us

☐ Other

☐ Resubmit

☒ Submit

☐ Return

☐ copies for approval

☐ copies for distribution

☐ corrected prints

Remarks: Please return by 9/5/16

COPY TO: file

SIGNED:

Alex Chambers



Mechanical

Webster University ISB Webster Groves, MO

Submittal #:

238800-2.8-I

Submittal Description:

Sound Attenuators

Return By:

9/5/16

Please Note: To avoid scheduling delays and equipment release delays, please submit by the "Return By" date.

CHECKED BY:			
DESIGNER: ZL		ENGINEER: MD	
☒	NO EXCEPTION TAKEN	☐	MAKE CORRECTIONS NOTED
☐	SUBMIT SPECIFIED ITEM	☐	REVISE AND RESUBMIT
☐	REJECTED	☐	
Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Equipment supplier is responsible for: dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and satisfactory performance of his work.			
		Job #:	5768
		Date:	8/23/16
		By:	ARC