



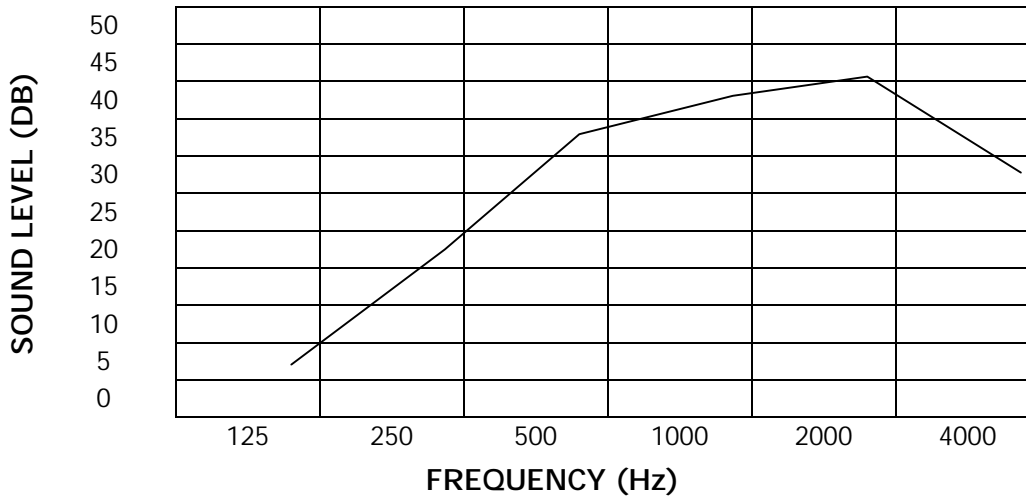
ACOUSTIC PROPERTIES

Insulated, Nonmetallic, Lined
UL-181 Class 1 Air Duct

CORPORATE HEADQUARTERS
7101 ATCO DRIVE
FORT WORTH TX 76118-7098
817-595-2894
817-284-0425 fax

Graphical values are average sound reduction in decibels between empty sheet metal duct and ATCO flexible duct. Average values can be used with reasonable accuracy for 10 ft. lengths of 6" to 12" diameter and air velocities up to 2500 fpm. For better accuracy, use tabulated data below.

TYPICAL SOUND REDUCTION NET INSERTION LOSS PER 10 FEET



Tabulated values are actual sound attenuation test data in decibels between empty sheet metal duct and ATCO flexible duct. Testing was done by an accredited independent laboratory using the insertion loss method of the ADC FD-72R1 Test Code on 10' lengths of 6", 8" and 12" diameter ducts, with and without airflow and in both a straight and 90 degree configuration. (Note: Independent laboratory test reports available upon request.)

ACOUSTIC DATA NET INSERTION LOSS (db) PER 10 FT.

Duct In Straight Configuration

Octave	Band No.	(2)	(3)	(4)	(5)	(6)	(7)
Center	Freq. Hx.	125	250	500	1000	2000	4000
6"	0 Flow	8	19	35	41	46	31
	2500 fpm	6	17	32	37	43	32
8"	0 Flow	5	19	37	38	42	26
	2500 fpm	6	18	34	38	43	27
12"	0 Flow	6	25	29	38	37	20
	2500 fpm	5	23	27	39	38	21

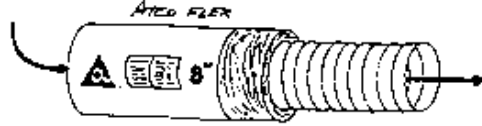
Duct With 90 Degree Bend

(2)	(3)	(4)	(5)	(6)	(7)
125	250	500	1000	2000	4000
5	15	38	44	45	42
5	15	38	43	45	42
4	19	34	39	39	33
5	19	35	38	38	34
6	17	29	36	37	24
5	17	28	36	36	24

* For lengths over 10', use data for 10' as extrapolation of data is not linear.

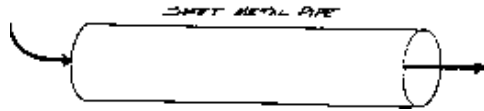
**ACOUSTIC PROPERTY DATA OF
ATCO FLEX DUCT VS. SHEET METAL DUCT**

ORIGINATION
OF SOUND
(X-VALUE)



RESULTING
SOUND
(Y-VALUE)

ORIGINATION
OF SOUND
(X-VALUE)



RESULTING
SOUND
(Y-VALUE)

TEST ASSUMPTIONS

- A) 125 HZ (CYCLES PER SEC)
- B) 2500 FPM MAXIMUM
- C) 10' TEST SECTION OF DUCT
- D) 15-25 db LEVEL FOR A/C UNIT

THE DECIBEL SCALE

- 10 = NORMAL BREATHING
- 20 = AVG A/C UNIT
- 30 = EMPTY THEATRE
- 50 = QUIET RESTURANT
- 70 = BUSY TRAFFIC
- 90 = SUBWAY TRAIN

6" DIA. METAL DUCT

<u>X-VALUE</u>	<u>Y-VALUE</u>
15 db	15 db
20 db	20 db
25 db	25 db

6" DIA. ATCO FLEX DUCT

<u>X-VALUE</u>	<u>Y-VALUE</u>
15 db	9 db
20 db	14 db
25 db	19 db

12" DIA. METAL DUCT

<u>X-VALUE</u>	<u>Y-VALUE</u>
15 db	15db
20 db	20 db
25 db	25 db

12" DIA. ATCO FLEX DUCT

<u>X-VALUE</u>	<u>Y-VALUE</u>
15 db	10 db
20 db	15 db
25 db	20 db