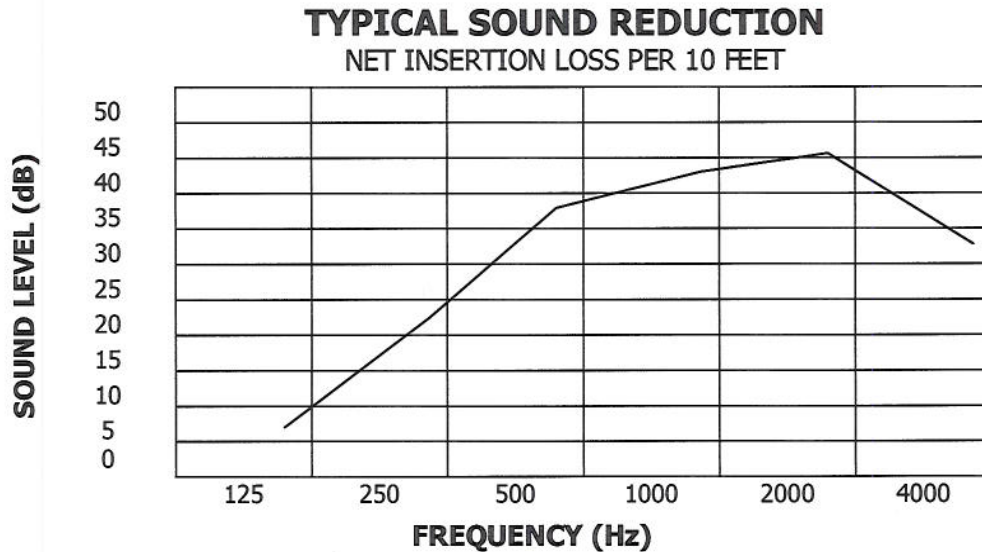




**ACOUSTIC PROPERTIES**  
 Insulated, Nonmetallic, Lined  
 UL-181 Class 1 Air Duct

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" lengths of 6" to 12" diameter and air velocities up to 2500 fpm. For better accuracy, use tabulated data below.



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)
Size	Freq Hz	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

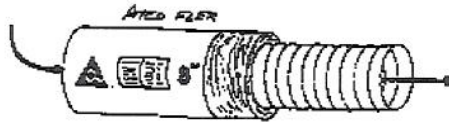
Duct With 90 Degree Bend

(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.

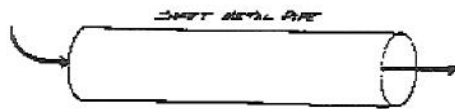
**ACOUSTIC PROPERTY DATA OF  
ATCO FLEX DUCT VS. SHEET METAL DUCT**

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 RESTAURANT
- 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	15 dB
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