



# "The ART of Noise Control"

For your local ArtUSA Representative

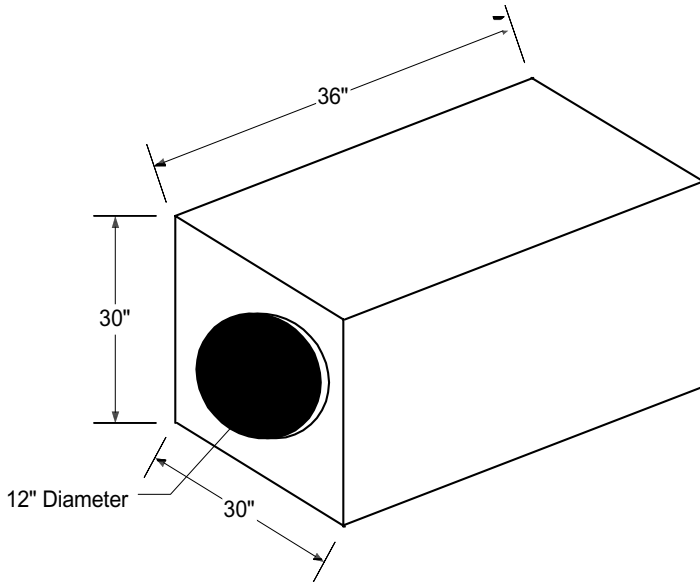
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## Sound Attenuator

NO. 802-04

CERTIFIED  
ENGINEERING DATA SHEET



### MODEL 12CNF-LP

CIRCULAR NO-FILL LOW PRESSURE LOSS

NOMENCLATURE EXAMPLE

INLET	LENGTH	MODEL
12	36	12CNF-LP

Commercial Acoustics sound attenuators are engineered to achieve a maximum insertion loss and a minimum pressure drop. Commercial Acoustics sound attenuators feature airfoil design for efficient aerodynamic performance, as well as superior acoustical materials and total galvanized steel construction guaranteeing excellent reliability and performance. DIL is achieved by use of tuned resonators. No acoustical fill is used.

### TABLE I

OCTAVE BAND	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CENTER FREQUENCY, Hz	63	125	250	500	1000	2000	4000	8000
SILENCER FACE VELOCITY, fpm	DYNAMIC INSERTION LOSS IN DECIBELS							
-2000	4	13	22	9	8	8	7	4
-1000	5	13	20	9	8	7	6	5
0	4	11	19	8	8	8	6	5
+1000	4	12	18	9	8	8	6	5
+2000	4	12	20	9	8	8	6	5

### TABLE II

OCTAVE BAND	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CENTER FREQUENCY, Hz	63	125	250	500	1000	2000	4000	8000
SILENCER FACE VELOCITY, fpm	SELF-NOISE SOUND POWER LEVELS, dB re: 10 <sup>-12</sup> WATTS							
-2000	65*	57	50	46	48	44	40	29*
-1000	64*	51*	37	27	23	21*	25*	31*
+1000	63*	48*	35*	25	20*	20*	26*	30*
+2000	64	54	45	41	44	39	30	31*

\* Denotes data that has reached ambient levels in the test room or is determined by instrument limitations. Actual levels are less than or equal to the level shown.

Static Pressure Loss, Model 12CNF-LP = 0.014 in.wc. @ 1000 fpm face velocity

Actual fpm = Actual CFM ÷ 0.785 square feet.

For intermediate velocities:  $\left(\frac{\text{Actual Velocity}}{1000}\right)^2 \times 0.014 \text{ in. wc.} = \text{Actual Pressure Loss}$

THESE TABLES CONTAIN BOTH FORWARD(+) AND REVERSE(-) FLOW ACOUSTIC AND AERODYNAMIC RATINGS WHICH ARE THE TEST RESULTS FROM AN INDEPENDENT NVLAP CERTIFIED LABORATORY MEASURED IN ACCORDANCE WITH ASTM E477-99. COPIES OF THESE TEST REPORTS CAN BE FURNISHED UPON REQUEST.