

Experience

the Sound of Silence



Hospital Grade Acoustical Duct Silencer

By

Buckley Associates, Inc.

Specifications

Acoustical Low-Pressure Flexible Aluminum Duct Silencer

A. Contractor shall provide and install Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct as manufactured by Buckley Associates, Sheet Metal Workers Local 17, or approved equal. Flexible duct with fabric or non-metal core are not acceptable.

B. Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct shall be comprised of an inner perforated core with an open area 20% to 25% of Triple-Lock Flexible Air Duct as manufactured by Buckley Associates. The perforated inner duct shall be enclosed in a 1½" thick fiber glass insulation having a density of ½ lb.

C. The insulation shall be covered by a seamless polyethylene jacket which is U. L. approved.

D. Triple-Lock Flexible Air Duct shall be made of dead soft aluminum sheet, spiral wound into a tube and spiral corrugated to provide strength and stability. The joint shall consist of a triple lock that is mechanically pre-formed without the use of adhesives to make a durable airtight seam. A double lock is not acceptable.

E. Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct shall be factory rated at 2" positive pressure and 1" negative pressure.

F. All Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct shall be individually cartoned and labeled for delivery on the job site for maximum protection and shipped in 5', 7' or 10' lengths.



Hospital Grade Acoustical Low-Pressure Flexible Aluminum Duct Silencer

A. Contractor shall provide and install "Hospital-Grade" Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct as manufactured by Buckley Associates, Sheet Metal Workers Local 17, or approved equal. Flexible duct with fabric and nonmetal core are not acceptable.

B. "Hospital-Grade" Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct shall be comprised of an inner perforated core with an open area 20% to 25% of Triple Lock Flexible Air Duct as manufactured by Buckley Associates. The perforated inner duct shall be sheathed in a U. L. approved seamless polyethylene jacket. A 1 ½" thick fiber glass insulation having a density of ½ lb. shall be totally encapsulated and sealed at each end to maintain a thermal barrier and prevent erosion or entrainment of particulate into the air stream. The outer jacket shall consist of a black fire-retardant polyethylene. The complete duct assembly shall conform to the amended standards of NFPA-90A.

C. Triple-Lock Flexible Air Duct shall be made of dead soft aluminum sheet, spiral wound into a tube and spiral corrugated to provide strength and stability. The joint shall consist of a triple lock that is mechanically pre-formed without the use of adhesives to make a durable airtight seam. A double lock is not acceptable.

D. "Hospital-Grade" Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct shall be factory rated at 2" positive pressure and 1" negative pressure.

E. All "Hospital-Grade" Acoustic Triple-Lock Low Pressure Aluminum Flexible Duct shall be individually cartoned and labeled for delivery on the job site, for maximum protection and shipped in 5', 7', or 10' lengths.

Single Wall— Straight +500 FPM

Octave Band	2	3	4	5	6	7	8	
HZ	125	250	500	1000	2000	4000	8000	
Noise Reduction dB	5' Straight 8" Ø Acoustical Low-Pressure Flexible Aluminum Duct (Single-Wall Perforated)	-2	-16	-17	-18	-13	0	+3
	5' Straight 8" Ø Hospital Grade Acoustical Low-Pressure Flexible Aluminum Duct (Single-Wall Perforated, Liner)	-2	-13	-16	-16	-11	-3	-5

Specifications

Hospital Grade Buck Duct Aluminum Silencer

A. Contractor shall provide and install "Hospital Grade" Acoustic Triple-Lock Aluminum Duct as manufactured by Buckley Associates, Sheet Metal Workers Local 17, or approved equal. Flexible duct with fabric and nonmetal core are not acceptable.

B. "Hospital Grade" Acoustic Triple-Lock Aluminum Duct shall be comprised of an inner perforated core with an open area 20% to 25% of Triple-Lock Air Duct as manufactured by Buckley Associates. The perforated inner duct shall be sheathed in a U. L. approved seamless polyethylene jacket. A 1½" thick fiber glass insulation having a density of ½ lb. shall be totally encapsulated to prevent erosion or entrainment of particulate into the air stream. The aluminum outer shell shall be triple-lock aluminum flexible ducting, factory tested to 12" of static pressure without leakage. End fittings shall be factory installed. The complete duct assembly shall conform to the amended standards of NFPA-90A.

C. Triple-Lock Flexible Air Duct shall be made of dead soft aluminum sheet, spiral wound into a tube and spiral corrugated to provide strength and stability. The joint shall consist of a triple lock that is mechanically pre-formed without the use of adhesives to make a durable airtight seam. A double lock is not acceptable.

D. All "Hospital Grade" Acoustic Triple-Lock Aluminum Duct shall be individually cartoned and labeled for delivery on the job site, for maximum protection, and shipped in 3', 5', 7' or 10' lengths.



Buck Duct Aluminum Silencer

A. Contractor shall provide and install Acoustic Triple-Lock Aluminum Duct as manufactured by Buckley Associates, Sheet Metal Workers Local 17, or approved equal. Flexible duct with fabric and nonmetal core are not acceptable.

B. Acoustic Triple-Lock Aluminum Duct shall be comprised of an inner perforated core with an open area 20% to 25% of Triple-Lock Air Duct as manufactured by Buckley Associates. The core shall be enclosed in a 1½" thick fiber glass insulation having a density of ½ lb. The aluminum outer shell shall be Triple-Lock Aluminum Flexible Ducting, factory tested to 12" of static pressure without leakage. End fittings shall be factory installed. The complete duct assembly shall conform to the amended standards of NFPA-90A.

C. Triple-Lock Flexible Air Duct shall be made of dead soft aluminum sheet, spiral wound into a tube and spiral corrugated to provide strength and stability. The joint shall consist of a triple lock that is mechanically pre-formed without the use of adhesives to make a durable airtight seam. A double lock is not acceptable.

D. All Acoustic Triple-Lock Aluminum Duct shall be individually cartoned and labeled for delivery on the job site, for maximum protection, and shipped in 3', 5', 7' or 10' lengths.



Double Wall— Straight +500 FPM

Octave Band		2	3	4	5	6	7	8
HZ		125	250	500	1000	2000	4000	8000
Noise Reduction dB	5' Straight 8" Ø Buck Duct Aluminum Silencer (Double-Wall Straight)	+2	-3	-12	-23	-17	-7	-7
	5' Straight 8" Ø Hospital Grade Buck Duct Aluminum Silencer (Double-Wall Straight w/ Interior Lining)	+2	-5	-13	-22	-12	-6	-8

About Our Tests

Our tests were conducted by Energistics Laboratory, an independent research and development facility. All testing and rating procedures used by the laboratory are accordance with ARI, ADC, ISO and ASHRAE standards as applicable.



Energistics Laboratory is a division
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The results of the testing are based on test results of sound collected on various types of eight-inch round Buck Duct specimens. Each test sample was tested at a velocity of 500 FPM and was then compared to hard metal duct at the same velocity. For the purpose of these tests, the only comparison made is test specimens to hard duct.

Test Method

The eight-inch damper assembly was attached to one of the calibrated laboratory airflow test systems. Each Buck Duct specimen was attached to an opening in the reverberation wall and sealed. A velocity of 500 FPM was set and the resulting sound values were recorded in the reverberation room for each specimen. Airflows were measured from sharp-edged orifice plates. All values were read from inclined manometers.

About Buckley Associates, Inc.

Buckley Associates has been providing customers with quality HVAC products and services for nearly 30 years. On March 17, 1970, founder Bob Buckley, Sr. opened the doors of Buckley Associates from a one room office in Whitman, Massachusetts. From these humble beginnings, Bob, his children and the firm's management team have developed what many consider to be the Northeast's premier manufacturer and distributor of quality HVAC products. The Buckley enterprise, now consisting of five strategically located distribution facilities and an expansive state-of-the-art manufacturing facility, continues to expand today guided by its original founder's vision of delivering the highest quality HVAC equipment with market setting, customer-focused services. Every level of the organization, from the skilled Local 17 Union sheet metal craftsman to the chairman of the board recognizes that the firm's continued success requires the commitment and devotion to providing state-of-the-market HVAC products with new innovative customer service solutions. As a regional leader in the HVAC manufacturing and distribution industry covering the seven northeast states with a focused, customer-service vision established over 30 years ago, Buckley Associates is uniquely positioned to service its market today and well into the future.

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