



المال للمنتجات الهندسية
AL MULLA ENGINEERING PRODUCTS



VENTUM
by AL MULLA GROUP

Sound Attenuators



Air Duct and Air Movement Products (AD&) manufacturing facilities of Al Mulla Group are located in Kuwait.

Al Mulla Industries (AMI) covers the Kuwait market requirements through a reliable transport network.

Promoted by Al Mulla Engineering Products and Al Mulla International General Trading of Equipment & Machinery Co. W.L.L. on behalf of Al Mulla Industries, with manufacturing facilities in Kuwait



is a registered trade mark of Al Mulla Group

■ Why Do Customers Choose Us

The greatest strengths of Al Mulla Industries are its skilled and experienced workforce, in addition to the use of latest design software, codes, and QHSE (Quality, Health, Safety, and Environment) standards that conform to ISO 9001, 14001 and 18001. In addition to Airduct and Air Movement Products, Al Mulla Industries is also a leading manufacturer and fabricator of quality steel products that cater to a wide variety of industries and clients in Kuwait such as Oil & Gas, Logistics, Chemical Industry, Construction, Cleaning and the Military.

The Company's manufacturing units are located in Kuwait. The plant in Kuwait has a total work-area of over 13,000 sq m. The Company has a team of highly skilled and trained work force, and is equipped with modern machinery as per latest standards in order to meet environmental requirements.



Sound Attenuator

The use of Sound Attenuators that are accurately rated under operating conditions is a matter of prime importance for achieving effective and predictable noise reduction as well as substantial savings over conventional methods. Al Mulla Industries offers you a wide range of Sound Attenuators that include Square & Rectangular Sound Attenuators, Circular Sound Attenuator, and Cross Talk Attenuators.

- Square & Rectangular
- Circular
- Cross Talk

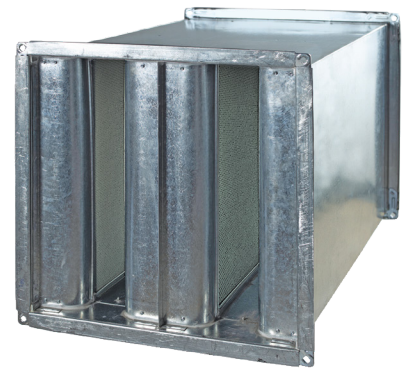


Square & Rectangular Sound Attenuators



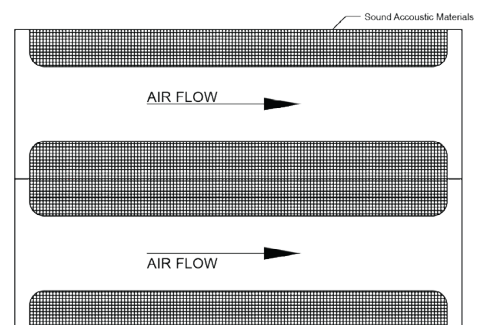
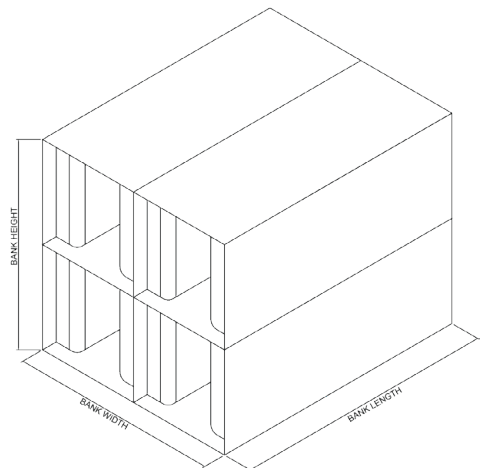
Model: AM-SAR

Sound attenuators are designed to attenuate noises of fans, air-conditioning devices in ventilation and air-conditioning systems, Air Handling Units, Fan Inlet and Discharge, Generator rooms and HVAC Duct Systems.



Technical Details:

Component	Specification
Model No.	AM-SAR
Casing	0.8 mm thick galvanized steel sheet
Baffles	0.8 mm thick, perforated galvanized steel sheet
Insulation	48 kg/m ³ Density Rockwool covered with black glass tissue
Flanges	Slide on Flanges and 25 mm TDC flanges on both ends
Optional Features	Flanges: Mild Steel angles having Ø8 mm holes at corners. Alternate hole pitch available on request
Optional Construction	Casing: Thickness up to 1.6 mm Casing and Baffles Material : Stainless Steel (304/316L) Fiber Glass Insulation can be provided instead of Rockwool if required
Features	<ul style="list-style-type: none"> Al Mulla Sound Attenuators are aerodynamically designed with bullnose splitters at inlet for square and rectangular type. The standard construction is suitable to withstand a maximum pressure of 2000 Pa. Square and Rectangular type sound attenuators are designed for handling maximum air capacities at minimum pressure drop. The turbulence of the airflow is minimized due to the bullnose design of the splitter at the air inlet. Solid curved splitter face minimises noise generation at the air inlet. Acoustic infill media is of superior quality, non combustible and has fungi resistant characteristics complying to and ASTM C 612.



MODEL AM-SAR - Size - 24" (W) x 24" (H) x 48" (L)

FORWARD FLOW

Octave Band Center Frequency Hz	Insertion Loss in dB							Octave Band Center Frequency Hz	Generated Sound Power in dB								
	Face Velocity in fpm								Face Velocity in fpm								
	0	500	1000	1500	2000				500	1000	1500	2000					
63	4	3	3	2	1	-		63	56	**	59	**	68	**	75	*	
125	10	10	9	8	8	-		125	44	**	54	*	63	*	70		
250	22	21	19	19	18	-		250	36	**	51		59		67		
500	33	32	31	29	>	27	>>	500	32	**	49		58		65		
1000	46	45	43	>	39	>>	31	>>	1000	29	*	46		54		63	
2000	46	46	45	>	39	>>	34	>>	2000	21	**	46		55		61	
4000	31	32	32	32	31	>>		4000	19	**	41		54		62		
8000	21	21	22	22	22	-		8000	24	**	32	*	48		58		

Flow	Face Velocity in fpm	Static Pressure	
Flow 1	500	0.14	iwg
Flow 2	1000	0.69	iwg
Flow 3	1500	1.53	iwg
Flow 4	2000	2.70	iwg

REVERSE FLOW

Octave Band Center Frequency Hz	Insertion Loss in dB							Octave Band Center Frequency Hz	Generated Sound Power in dB						
	Face Velocity in fpm								Face Velocity in fpm						
	0	500	1000	1500			500		1000	1500					
63	3	4	5	6	>			63	59	**	68	**	73	*	
125	10	12	12	13				125	43	**	53	*	60	**	
250	21	23	24	25	>			250	37	**	54		62		
500	32	34	34	33	>>			500	36		50		63		
1000	46	47	44	>>	36	>>		1000	30	*	51		58		
2000	46	46	46	>	36	>>		2000	21	**	47		58		
4000	31	31	31	30	>			4000	19	**	41		55		
8000	21	20	18	17				8000	24	**	32	*	48		

Flow	Face Velocity in fpm	Static Pressure	
Flow 1	500	0.14	iwg
Flow 2	1000	0.69	iwg
Flow 3	1500	1.53	iwg



Al Mulla Industries certifies that the Sound attenuator shown herein is licensed to bear the AMCA seal for model AM-SAR. The rating shown are based on tests and procedures performed in accordance with AMCA publication 1011 and comply with the requirements of AMCA certified Rating Program.

The AMCA certified ratings Seal applies to dynamic insertion loss, airflow generated noise, and pressure drop



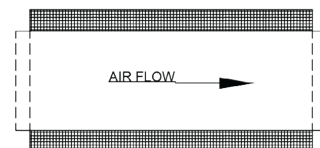
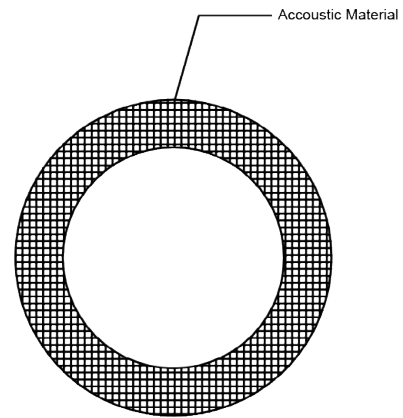
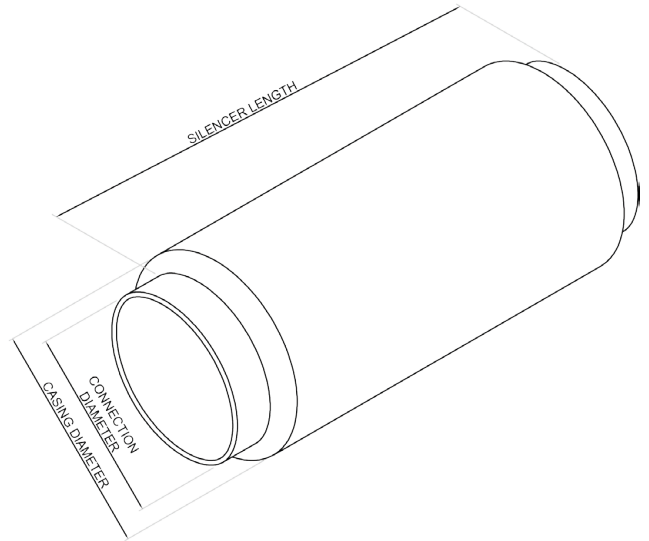
Circular Sound Attenuators

Model: AM-SAC

Sound attenuators are designed to attenuate noises of fans, air-conditioning devices in ventilation and air-conditioning systems, Air Handling Units, Fan Inlet and Discharge, Generator rooms and HVAC Duct Systems.

Technical Details:

Component	Specification
Model No.	AM-SAR
Casing	0.8 mm thick galvanized steel sheet
Baffles	0.8 mm thick, perforated galvanized steel sheet
Insulation	48 kg/m ³ Density Rockwool covered with black glass tissue
Optional Construction	Casing: Thickness up to 1.6 mm Casing and Baffles Material: Stainless Steel (304/ 316L) Fiber Glass Insulation can be provided instead of Rockwool if required
Features	<ul style="list-style-type: none"> • Smooth Aerodynamic Internal geometries to that minimizes pressure drop & turbulence • Eliminates costly round to square transitions • Central splitter is a conical inlet to minimize self generated noise & pressure loss. • Acoustic infill media is of superior quality, non combustible and has fungi resistant characteristics complying to and ASTM C 612.



Cross Talk Attenuator

Model: AM-CTA (AM-CTL/ AM-CTU/ AM-CTZ)

Al Mulla range of cross talk attenuators has been designed to provide low airflow resistance while maintaining a higher degree of acoustic attenuation. The acoustically engineered internal baffles are lined with fiberglass media and provide excellent noise reduction, while the aerodynamic design minimizes the pressure drop & regenerated noise

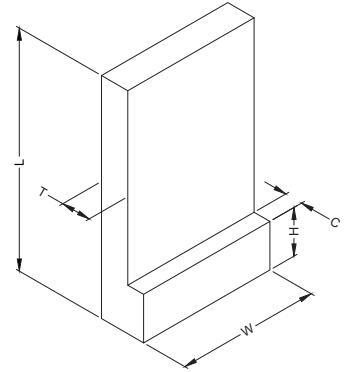
Technical Details:

Component	Specification
Models & configurations	AM-CTL – Wall to Ceiling penetration AM-CTU – Ceiling to Ceiling penetration AM-CTZ – Installation within the wall or partition
Standard Construction	Outer Casing: 0.8 mm thick galvanized steel sheet. Inner Casing: 0.8 mm thick galvanized steel sheet. Insulation: 10 kg/m ³ Density fiberglass.
Features	<ul style="list-style-type: none"> Al Mulla Crosstalk attenuators provide privacy by minimizing speech transmission. Permits air transfer while attenuating unwanted noise Aerodynamic design to minimize the turbulence & pressure drop Wide range of design & sizes available

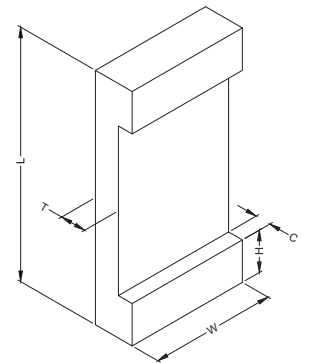
Application

Cross talk attenuators provide continuous air ventilation and control unwanted sound between adjacent spaces.

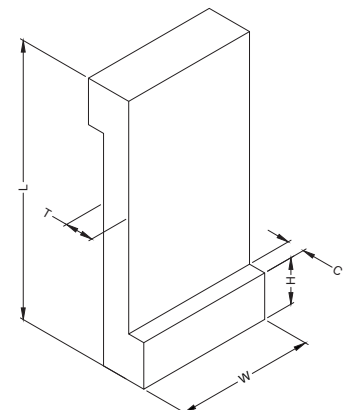
Cross talk attenuators are designed to maintain sound transmission ratings in low velocity applications where air is transferred between adjoining spaces. The acoustic media provides excellent attenuation of speech and unwanted noise while permitting fresh air to circulate continuously.



AM-CTL



AM-CTU



AM-CTZ



CROSS TALK ATTENUATOR

Standard Dimensions Limit

Det. No.		H - Height	C	Thickness	L - Length		
Min	Max				AM-CTL	AM-CTZ	AM-CTU
6	48	6	3	3.5	42	48	48
6	48	8	3	5	40	48	48
6	48	10	3	7	38	48	48

- All dimensions are in inches.
- Standard sizes are based on raw material and acceptable structural engineering practices.
- For sizes outside the standard range, please contact factory.
- When the overall dimension exceeds the maximum width dimension, the silencer will consist of multiple components.





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AL MULLA ENGINEERING PRODUCTS



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