

Acousti-Vane™ Silencer Series

The Acousti-Vane silencer attenuates noise generated by gas turbine inlets, axial fans, and compressors. This bulletin describes standard design features. See the *Acousti-Vane Product Selection Guide*, catalog 275, for information on specifying silencer performance and ordering standard models. For applications that require attenuation of high-frequency noise, see the *Acousti-Tube® Product Selection Guide*, catalog 260 and *Acousti-Tube® Technical Bulletin 94-1315*.



Physical Description

BAFFLES

Frames

- **Material:** 16-gauge galvanized perforated steel.

Acoustic Insulation

- **Material:** Non-wicking mineral wool fiber blanket, with low in-service shrinkage, suitable for a wide range of service temperatures.

SHELL

- **Material:** Typically, 3/16-in. structural-grade steel. Minimum thickness is 10 ga.
- **Finish:** The standard shell finish includes solvent-cleaning by SSPC-SP-1, shop coat primer inside and outside, and a blue enamel coating outside. The paint system withstands internal gas temperatures and skin temperatures up to 200° F. Optional paint systems are available.

- **Assembly:** Gasketed and sealed externally with zinc-plated bolts.

DIMENSIONS AND WEIGHTS

See Table 1 and Figure 1 (reverse side).

Environmental Description

APPLICATION TEMPERATURE

- -20° F to 200° F.

DESIGN LOADS

Designed to withstand the following conditions:

- Wind loads of 90 mph in accordance with ASCE 7-95 (American Society of Civil Engineers).
- Ground snow load of 50 lb/ft² in accordance with ASCE 7-95.
- Seismic zone 3 for all silencer elevations and seismic zone 4 for elevations below 30 ft in accordance with UBC 97 (Uniform Building Code).
- Upset pressures of ± 20" w.g. without permanent deformation.
- Dead loads up to the silencer's weight.



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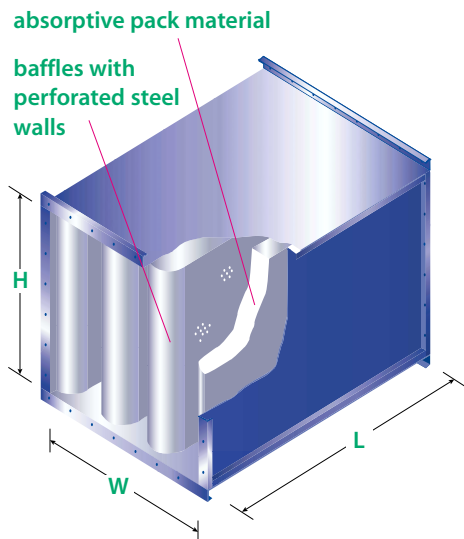
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TABLE 1. Models, dimensions, and weights. Refer to dimensional drawings for flange details.

Model Number (AV-H x W-L-LP/MP/HP)*	Silencer Dimensions			Silencer Weight (lb)									Dimensional Drawing Number*	
	H (in.)	W (in.)	L (ft)*	3-ft L	4-ft L	5-ft L	6-ft L	7-ft L	8-ft L	9-ft L	10-ft L	11-ft L		12-ft L
AV-2 x 2-L-LP	24.00	24.00	Specify whole lengths from 3 to 12.	270	335	420	490	550	630	700	765	845	910	L8-22L-AA
AV-2 x 3-L-LP	24.00	36.00		335	420	525	610	700	800	885	970	1075	1160	L8-23L-AA
AV-2 x 4-L-LP	24.00	48.00		410	520	650	760	870	1000	1110	1220	1350	1460	L8-24L-AA
AV-3 x 4-L-LP	36.00	48.00		495	630	795	925	1060	1225	1360	1490	1655	1790	L8-34L-AA
AV-4 x 4-L-LP	48.00	48.00		580	735	935	1090	1250	1450	1605	1765	1965	2120	L8-44L-AA
AV-4 x 6-L-LP	48.00	72.00		900	1160	1490	1740	2000	2325	2590	2850	3175	3430	L8-46L-AA
AV-5 x 6-L-LP	60.00	72.00		1015	1310	1690	1985	2275	2660	2950	3250	3625	3920	L8-56L-AA
AV-6 x 6-L-LP	72.00	72.00		1130	1465	1895	2225	2555	2990	3325	3650	4080	4410	L8-66L-AA
AV-6 x 8-L-LP	72.00	96.00		1740	2220	2830	3300	3775	4390	4860	5340	5950	6425	L8-68L-AA
AV-7.5 x 7.5-L-LP	90.56	90.56		1565	2035	2675	3140	3610	4250	4720	5185	5825	6300	L8-77L-AA
AV-8 x 8-L-LP	96.00	96.00		2090	2670	3435	4015	4600	5360	5940	6525	7295	7875	L8-88L-AA
AV-2 x 2-L-MP	24.00	24.00		285	385	455	525	625	700	765	865	940	1010	M8-22L-AA
AV-2 x 3-L-MP	24.00	36.00		355	485	575	665	790	885	975	1100	1200	1290	M8-23L-AA
AV-2 x 4-L-MP	24.00	48.00		475	600	775	900	1050	1200	1350	1500	1650	1800	M8-24L-AA
AV-3 x 4-L-MP	36.00	48.00		535	730	875	1020	1215	1360	1500	1700	1840	1990	M8-34L-AA
AV-4 x 4-L-MP	48.00	48.00		630	865	1035	1205	1445	1615	1780	2020	2185	2355	M8-44L-AA
AV-4 x 6-L-MP	48.00	72.00	1000	1400	1675	1975	2375	2650	2900	3300	3600	3900	M8-46L-AA	
AV-5 x 6-L-MP	60.00	72.00	1150	1600	1900	2250	2700	3000	3300	3800	4100	4400	M8-56L-AA	
AV-6 x 6-L-MP	72.00	72.00	1275	1800	2175	2525	3025	3400	3750	4275	4600	5000	M8-66L-AA	
AV-6 x 8-L-MP	72.00	96.00	1880	2600	3110	3620	4340	4850	5360	6080	6590	7100	M8-68L-AA	
AV-7.5 x 7.5-L-MP	90.56	90.56	2150	3075	3700	4325	5225	5875	6500	7325	8050	8700	M8-77L-AA	
AV-8 x 8-L-MP	96.00	96.00	2800	3900	4675	5475	6550	7350	8125	9225	10000	10800	M8-88L-AA	
AV-2 x 2-L-HP	24.00	24.00	325	410	520	610	700	810	895	975	1085	1175	H8-22L-AA	
AV-2 x 3-L-HP	24.00	36.00	410	525	680	790	905	1060	1175	1285	1440	1555	H8-23L-AA	
AV-2 x 4-L-HP	24.00	48.00	525	675	900	1050	1200	1400	1600	1700	1900	2050	H8-24L-AA	
AV-3 x 4-L-HP	36.00	48.00	650	840	1295	1300	1480	1745	1935	2125	2390	2580	H8-34L-AA	
AV-4 x 4-L-HP	48.00	48.00	775	1005	1330	1555	1785	2110	2340	2565	2890	3120	H8-44L-AA	
AV-4 x 6-L-HP	48.00	72.00	1150	1600	1950	2275	2750	3075	3400	3900	4200	4500	H8-46L-AA	
AV-5 x 6-L-HP	60.00	72.00	1300	1875	2250	2600	3175	3650	4000	4475	4825	5200	H8-56L-AA	
AV-6 x 6-L-HP	72.00	72.00	1475	2100	2525	3025	3600	4000	4425	5075	5500	5900	H8-66L-AA	
AV-6 x 8-L-HP	72.00	96.00	2115	3000	3585	4170	5050	5640	6230	7110	7710	8300	H8-68L-AA	
AV-7.5 x 7.5-L-HP	90.56	90.56	2375	3425	4150	4850	5900	6625	7225	8400	9100	9800	H8-77L-AA	
AV-8 x 8-L-HP	96.00	96.00	3075	4375	5250	6125	7425	8325	9200	10500	11375	12275	H8-88L-AA	

* L represents depth in feet. Substitute whole lengths from 3 to 12 for L in the model number and 03 to 12 in the drawing number.
Specify the model: LP for low pressure drop, MP for moderate pressure drop, or HP for high performance.



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FIGURE 1. Guide to Acousti-Vane dimensions.