

SPECIFICATION DATA
Sample Specification Sheet for VA Inline Silencers

Silencer to be Model () Inline Silencer manufactured by **Innovative Metal Industries, Inc.**, San Bernardino, California.

Unit to incorporate () spiral modules each having an **Oxel**[®] four bladed () degree spiral attenuator made up of an absorbing layer, a barrier and another absorbing layer. The blades are to be held in place by a matrix of spiral rods.

CONSTRUCTION:

16 gauge minimum (0.060" thick) carbon steel sheet per ASTM A366 all welded construction per MIL-STD-1595A. The exterior wrap is to be treated with a 1.5 pound per square foot layer of acoustical dampening compound and then covered with a fiberglass acoustical insulation bonded to a high velocity scrim cloth per **Oxel**[®] 919 treatment. Attenuation spirals to be constructed from stainless steel per ASTM-A240.

Attenuation materials to be fiberglass based acoustical insulation bonded to 26 gauge (0.016" thick) acoustical lead sheet. All exposed fiberglass face to be bonded with a fiberglass scrim cloth per **Oxel**[®] 919 treatment to a minimum strength per square inch of 80 lbs. warp and 70 lbs. filler, packed under a minimum of 5% compression. Fiberglass based insulation is vermin and moisture proof with a flame-spread maximum of 25.

AIRFLOW SPECIFICATIONS:

Unit to provide a minimum of () CFM of air flow at no more than ()" w.g. pressure drop across silencer.

ATTENUATION SPECIFICATIONS:

Silencer to provide not less than the following attenuation:

Bands	1	2	3	4	5	6	7	8
Mid Freq. (Hz)	63	125	250	500	1000	2000	4000	8000
	dB	dB	dB	dB	dB	dB	dB	dB
Insertion Loss	()	()	()	()	()	()	()	()

SELF GENERATED SOUND LEVELS:

Forward flow:

Generated sound in sound power level (Lw) dB re 10⁻¹² watt

Bands	1	2	3	4	5	6	7	8
Mid Freq. (Hz)	63	125	250	500	1000	2000	4000	8000
	dB	dB	dB	dB	dB	dB	dB	dB
Lw @ ()	()	()	()	()	()	()	()	()

FPM Velocity

Reverse flow:

Generated sound in sound power level (Lw) dB re 10⁻¹² watt

Bands	1	2	3	4	5	6	7	8
Mid Freq. (Hz)	63	125	250	500	1000	2000	4000	8000
	dB	dB	dB	dB	dB	dB	dB	dB
Lw @ ()	()	()	()	()	()	()	()	()

FPM Velocity

Note:

The above insertion loss values and self generated sound levels are extrapolated from actual test data from an independent testing facility per ASTM E477 "Standard Method of Testing Duct Liner Materials and Prefabricated Silencers for Acoustical and Airflow Performance".