AVS

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ACOUSTIC – Acoustic Vacuum Silencer (AVS)

The AVS (Acoustic Vacuum Silencer) is a vertical 2-in-1 silencer-separator developed for the discharge of liquid ring vacuum pumps. In a single compact body, the unit combines centrifugal separation of sealing water with acoustic attenuation of the exhaust air/gas stream, preventing water mist carryover into the plant environment while reducing noise levels with ultra-low backpressure.

Engineered 100% fiber-free in stainless steel (OD tubing and 2B finish sheet), the AVS maintains constant efficiency even under continuous wet and vapor-laden operation, without saturating or compromising vacuum pump suction capacity.



Technical Features:

- Full construction in AISI 304L or 316L stainless steel (OD tubing and 2B sheet);
- Integrated dual function: cyclonic sealing water separator + reactive acoustic silencer;
- 100% fiber-free design — never soaks and never loses acoustic efficiency with water or mist;
- Compact vertical geometry for direct installation on the vacuum pump discharge line;
- Available in standardized sizes from 2" to 6" (models AVS-050 through AVS-150);
- Bottom drain connection sized for sealing water return or discharge (with water seal / siphon trap);
- Eliminates splashing, mist carryover, and excess moisture around the pump area;
- **Ultra-low discharge backpressure, preserving vacuum capacity and motor current;**
- **Ideal for evaporators, dryers, filling lines, filtration, and sanitary processes;**
- **Zero internal element maintenance and high corrosion resistance in wet environments.**

Notice: Conventional fiber-packed silencers cannot withstand liquid ring vacuum pump discharge — within days the wool becomes waterlogged, increasing pump backpressure and losing acoustic attenuation. The AVS was engineered specifically for continuous wet duty in stainless steel, combining true cyclonic separation and acoustic attenuation in a lightweight, durable, and hygienic unit.

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Practical Example:

Installation location:	Liquid ring vacuum pump discharge (evaporator / dryer system)
Reference model:	AVS-100 (4" — Vertical Cyclonic)
Process fluid:	Air / non-condensable gases + sealing water
Material of construction:	AISI 304L / 316L Stainless Steel (OD tubing and 2B sheet)
Integrated function:	Centrifugal sealing water separation + exhaust acoustic attenuation
Typical backpressure:	Ultra-low (preserving the nominal pump suction curve)
Recommended installation:	Vertical mounting with bottom drain fitted with a water seal (siphon trap)

⚠ Prolonged exposure to loud noise without hearing protection may cause permanent hearing loss. For permissible exposure time limits, consult OSHA Safety Standards.

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