X-VENTISO® by earthcore®

# WSPRDraft Flue Silencers

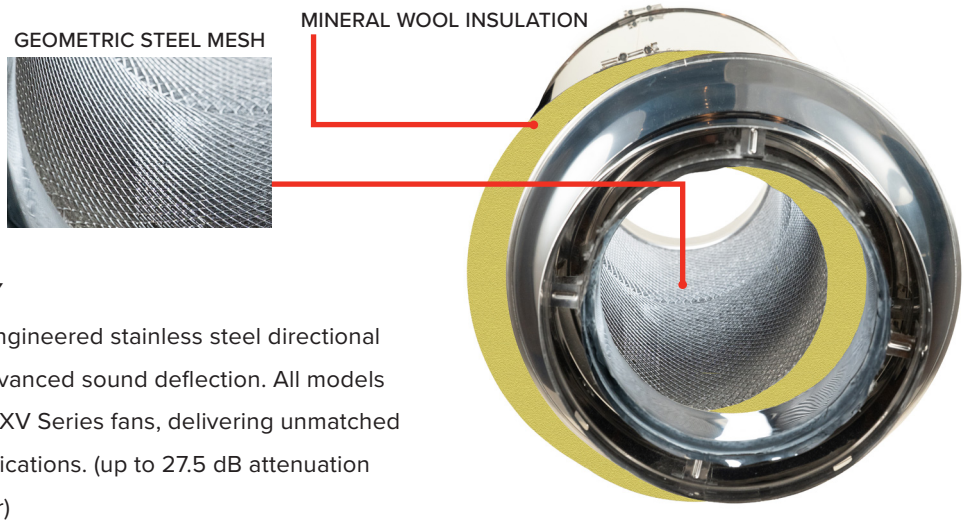
**INTRODUCING THE WSPRDRAFT SERIES FLUE SILENCER:**

## The Industry's Premire Solution For Mechanical Noise Cancellation

Mechanically drafted hearth and combustion applications introduce fan motor noise (both electromagnetic and ECM units). The X-Ventiso Flue Silencer achieves superior noise attenuation in power-vented chimney systems through an acoustically engineered design featuring customized internal mesh structure and high-density, heat-resistant mineral wool. Available for all standard gas flue chimeny sizes as well as custom flue pipe fitments.

## QUALITY AND FUNCTIONALITY

- **FULL 404 STAINLESS STEEL**, corrosion resistant body.
- **MINIMAL CROSS-SECTION REDUCTION** for best airflow and minimal resistance.
- **GEOMETRIC 404 STAINLESS STEEL MESH LINING** for best in-class dB reduction and motor moise deflection, with maximum durability.
- **HIGH-DENSITY MINERAL WOOL INSULATION** maximizes sound absorption across multiple frequency bands.
- **UNIVERSALLY EQUIPPED WITH INTEGRATED DRAINS** for condensation control.

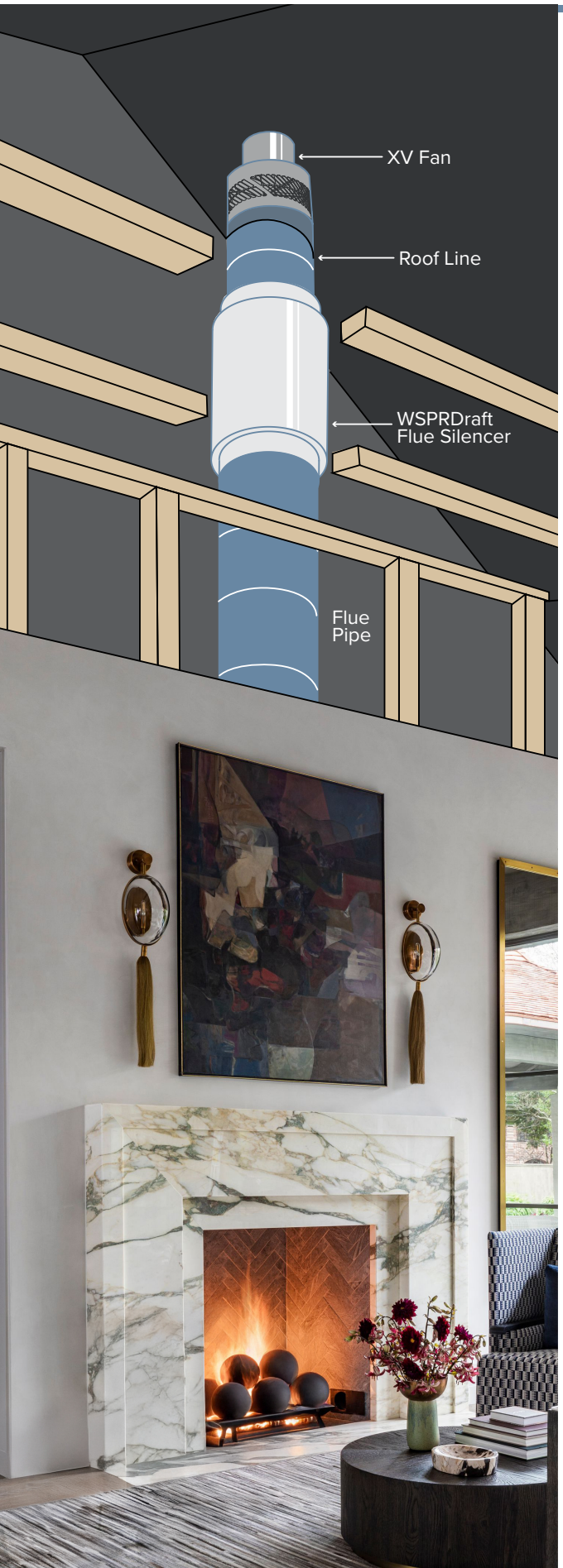



### SPECIALIZED STEEL MESH GEOMETRY

WSPRDraft Flue Silencers utilize precision-engineered stainless steel directional layers and geometric modeling to enable advanced sound deflection. All models are optimized for electromagnetic motors in XV Series fans, delivering unmatched low-noise performance in paired hearth applications. (up to 27.5 dB attenuation (1kHz) when paired with XV350 Draft Inducer)

# WSPRDraft

Flue Silencer




## Available Sizes

Standard Sizes: 8"- 16" flue diameter (ID)
*Custom sizes available upon request.*

## Acoustic Performance

Bringing the sound of your chimney fan below the natural ambience of the fireplace itself.

Up to

**22 dB**

**Sound Power Reduction**

As Low As

**25 dBA**

**At Listening Position**

Perceived As

**75%**

**Quieter to the Ear**

**DESIGNED FOR LUXURY APPLICATIONS**

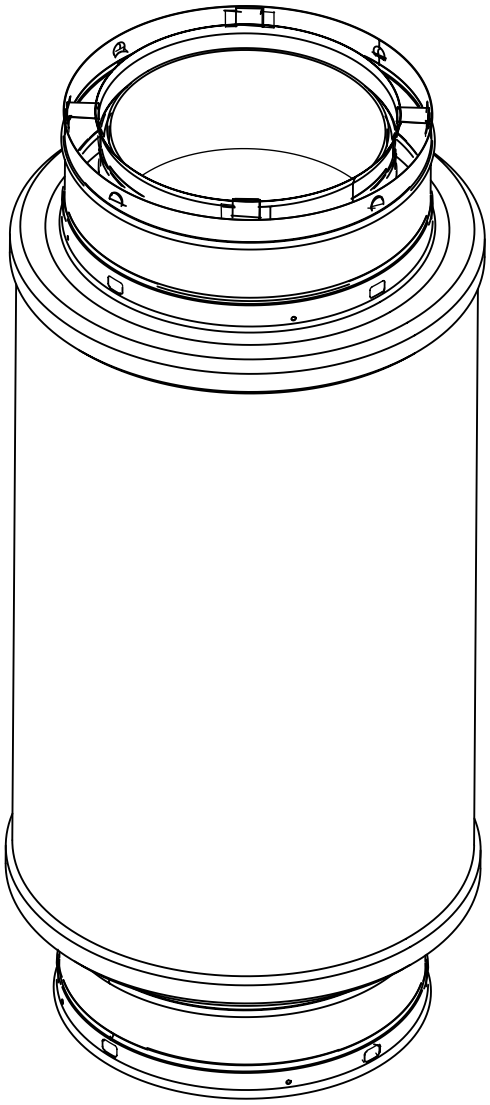
The WSPRDraft passive chimney silencer series is engineered to reduce fan motor noise to levels below the natural sound of a burning fireplace. In spaces where acoustic comfort is essential, WSPRDraft ensures that draft fans operate without disturbing the natural ambience of the fireplace.

*All sound data in this document was measured in accordance with ANSI S12.51 / ISO 3741 comparison method testing at an accredited acoustic laboratory.*

# Understanding Sound Levels in the Home

### HOW LOUD IS A DECIBEL?

Sound is measured in decibels (dBA), a logarithmic scale where every 10 dB increase sounds roughly twice as loud to the human ear. A 10 dB reduction cuts the perceived sound level roughly in half. A 20 dB reduction—what the WSPRDraft silencer achieves—means the fan sounds approximately 75% quieter as it did without the silencer.



### SOUND LEVEL COMPARISON CHART

This chart places the XV Series fan noise—with and without the WSPRDraft Silencer—in the context of everyday sounds and fireplace operation.

| Sound Source | dBA at Listening Position |
|---|---|
| Rustling leaves | 20 |
| Quiet whisper at 5 feet | 25 |
| XV Series Fan + WSPRDraft Silencer | 25-30 |
| Quiet rural nightime | 30 |
| Soft background music | 35 |
| **Gas fireplace (combustion noise)** | **35-45** |
| **Wood Fireplace (crackling)** | **40-50** |
| Quiet living room | 40 |
| XV Series Fan without silencer | 44-53 |
| Normal conversation | 55-60 |
| Television at normal volume | 60-65 |

With the WSPRDraft silencer installed, the XV Series fan operates at sound levels below the natural noise of the fireplace itself. The listener hears the comforting crackle of their fire—not the fan.

# WSPRDraft

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## Measured Performance Data

*Sound power levels (LwA) measured per ANSI S12.51 comparison method in a qualified reverberation room. Sound pressure levels (SPL) are calculated at the listening position. All values A-weighted.*

**RSD FAN SOUND POWER — Before and After WSPRDraft**

| Fan Model | Speed | Fan Only LwA (dBA) | With Silener LwA (dBA) | Reduction (dB) | Silencer |
|---|---|---|---|---|---|
| **XV150** | 100% | 67.3 | 46.1 | **21.2** | WSPRDraft |
| **XV150** | 40% | 63.8 | 42.7 | **21.1** | WSPRDraft |
| **XV250** | 55% | 66.5 | 45.8 | **20.7** | WSPRDraft |
| **XV250** | 40% | 64.1 | 42.7 | **21.4** | WSPRDraft |
| **XV350** | 40% | 58.6 | 36.2 | **22.4** | WSPRDraft |
| **XV350** | 25% | 48.9 | 26.5 | **22.3** | WSPRDraft |

**WHAT IS ACTUALLY HEARD**

SPL at the typical seated listening position:

| Fan + Silencer | Fan Only SPL (dBA) | With Silencer SPL (dBA) | Comparable to |
|---|---|---|---|
| **XV150 + WDR 10”** | 52.7 | 31.5 | *Quiet bedroom* |
| **XV250 + WDR 10”** | 51.9 | 31.2 | *Quiet bedroom* |
| **XV350 + WDR 12”** | 44.0 | 21.6 | *Rustling leaves* |

**FIREPLACE COMBUSTION NOISE — The Natural Baseline**

Every fireplace produces sound during combustion. Understanding these levels explains the importance of why WSPRDraft is so effective.

| Fireplace Type | Typical SPL at Seated Position |
|---|---|
| Gas fireplace — pilot and burner noise | **35–45 dBA** |
| Wood fireplace — crackling and popping | **40–55 dBA** |
| Large masonry fireplace with active fire | **45–60 dBA** |

With the WSPRDraft installed, the XV Series fan at the listening position measures 25–35 dBA—consistently ***below*** the sound produced by the fireplace itself. The fan becomes inaudible in the presence of the fire. Even with a gas appliance at its quietest, the silenced fan sits 5–10 dB below the combustion noise, making it effectively imperceptible.

**ISO 7235:2003**