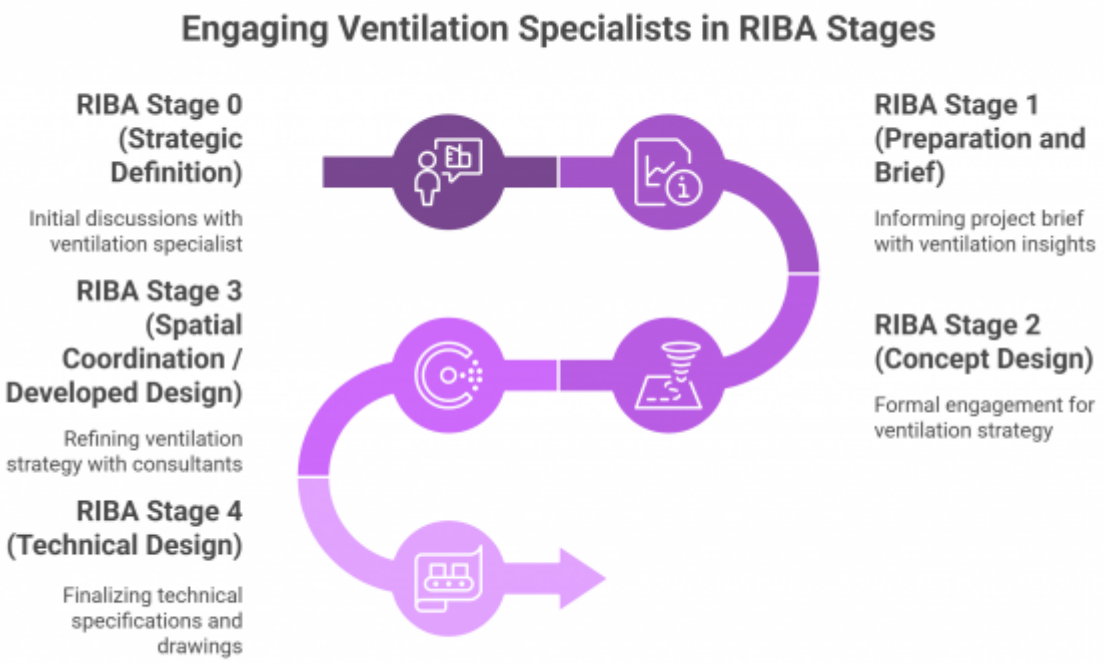
What is the Optimal RIBA Stage for Engaging a Domestic Ventilation Specialist?

Engaging a domestic ventilation specialist at the correct RIBA project stage is essential for developing an effective, compliant ventilation strategy. Early consultation ensures integration with the core design—not an afterthought—delivering better performance, cost-efficiency, and occupant comfort. Timing varies slightly for new builds, refurbishments, or extensions.



Core Principle: Engage Early

Involve the ventilation specialist **as early as practicable** across all project types. Delaying until RIBA Stage 4 (Technical Design) risks:

- **Compromised designs**: Architectural layouts may be too rigid for optimal ventilation integration.
- **Higher costs**: Retrospective adjustments inflate budgets.
- **Coordination clashes**: Ductwork/plant may conflict with structural elements or other services.
- **Regulatory non-compliance**: Meeting Building Regulations (e.g., Approved Document F) requires upfront planning.
- **Poor performance**: Substandard air quality, damp, or excessive energy use.

Project-Specific Guidance

New Builds

RIBA Stage 0–1 (Strategic Definition & Brief)

- **Action**: Preliminary discussions to shape project aspirations (e.g., Passivhaus targets, airtightness goals).
- **Rationale**: Aligns ventilation strategy with energy efficiency and indoor air quality objectives.

RIBA Stage 2 (Concept Design) □ Critical Phase □

- **Action**: Specialist input on:
  - System types (MVHR, MEV, or natural ventilation).
  - Plant space needs (AHUs, fan units) and duct routes.
  - Building orientation impacts.
  - Compliance planning.
- **Rationale**: Informs architectural decisions (ceiling heights, service risers, fabric strategy).

Stages 3–4 (Spatial Coordination & Technical Design)

- **Action**: Refine system sizing, duct coordination, controls, and final specifications for tender.

Refurbishments

RIBA Stage 1 (Preparation & Brief)

- **Action**: Specialist assesses existing ventilation, airtightness impacts from upgrades (e.g., new glazing), and moisture/air quality issues.
- **Rationale**: Avoids creating unhealthy environments post-refurbishment.

RIBA Stage 2 (Concept Design) □ Key Phase □

- **Action**: Develop solutions for existing structures (e.g., MVHR feasibility in period properties).

Stages 3–4: Technical detailing for integration with legacy fabric/services.

Extensions

RIBA Stage 1 (Preparation & Brief)

- **Action**: Evaluate ventilation for the extension *and* its impact on the existing dwelling (e.g., blocked airbricks, altered airflow).

RIBA Stage 2 (Concept Design) □ Vital Phase □

- **Action**: Design integrated strategies (e.g., hybrid systems linking old/new spaces).

Stages 3–4: Detailed design for extension + existing dwelling upgrades.

Conclusion

Engage ventilation specialists at RIBA Stage 2 (Concept Design) to confirm core strategies for all project types. **Initial consultations during Stages 0–1** are strongly advised for complex or high-performance projects (e.g., Passivhaus). This proactive approach:

- Embeds ventilation in the design ethos from inception.
- Ensures regulatory compliance, cost control, and optimal indoor air quality.
- Prevents costly retrofits or performance shortfalls.