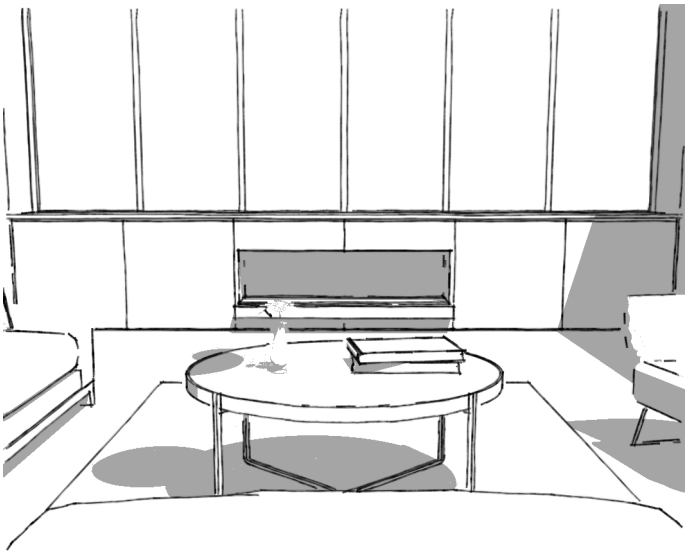
DS Series - Sealed Cavity Installation

The installation of an **Escea DS Series Gas Fire** into a **sealed cavity, hutch, joinery** or **underbench installation** may expose heat sensitive materials to unsuitable or undesirable levels of heat or heat transfer due to the compressed style of finish. While the design meets the safety requirements of *AS/NZS5601 Gas Installations*, heat sensitive materials exposed to undesirable levels of heat, may require additional protection. The following guide will help in specifying the additional installation requirements for a sealed cavity, hutch, joinery or underbench installation.

www.escea.com/ds-series



DESIGN CONSIDERATIONS

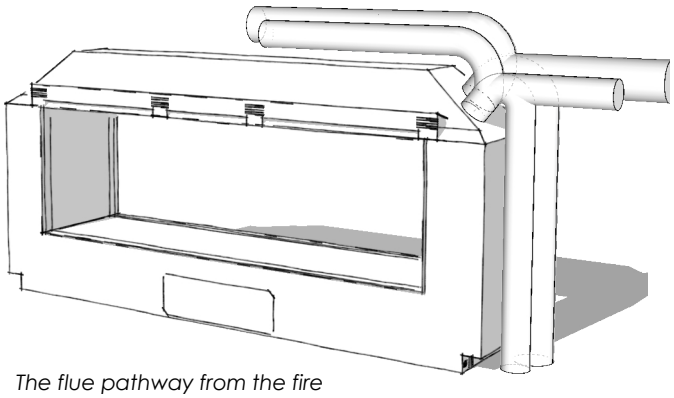
Material Suitability □
Heat build-up in a sealed cavity can lead to hot spots developing, from radiant heat off the exhaust flue pipe as it exits the fire. Choose materials that are **suitable for the specification**. Reference should always be made to the material manufacturer's specifications, including maximum service temperature, for suitability of use and the ability to withstand localised heating. **refer to the **Escea D-Series Gas Fire Materials Guide.***

Insulation □
Use an **insulating board** to protect heat sensitive or combustible materials. Where the top of the sealed cavity and exhaust flue are in close proximity, protect these materials by using an insulating material.
Escea recommends 25mm **Skamotec 225** or **Firemaster 550**, for their combined non-combustibility, heat resistance and insulative properties. Adhesive fix insulation sheets to the underside of the top of the cavity or adjacent to the exhaust flue pipe.

Flue Clearance □
A **50mm clearance** to combustible materials **must** be maintained from the exhaust flue for the first **1200mm** of the flue run from the fire. When the exhaust flue is in close proximity to a heat sensitive or non-combustible material, this material should be protected or the risk minimised.

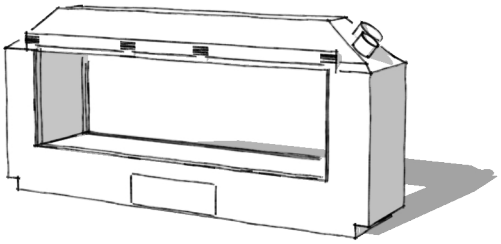
Ventilation □
Ventilation is not required in all design scenarios, but it can help reduce heat on surfaces.
Ventilate the sealed cavity to allow **fresh air in** at the base, and **allow air to escape the cavity**. The minimum open area of vents should be equivalent to a **75mm Ø hole** or **4400mm²**.

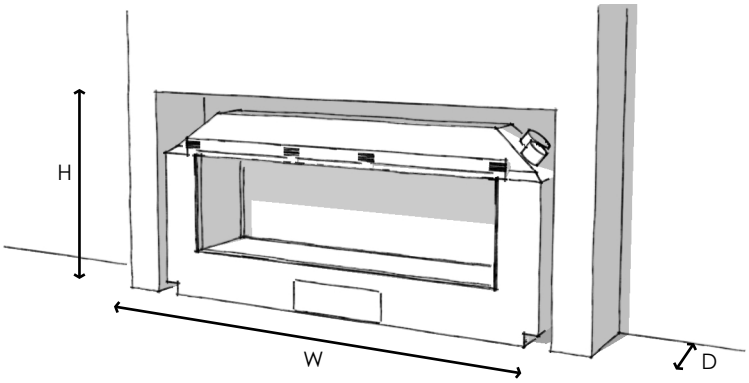
Flue System □
The **powered direct vent flexible flue system** achieves greater efficiencies and allows flues up to 40m in length. The flue pathway can be **horizontal, vertical** or a **mix of both**, running through the roof, through the wall, or below the fire through the floor. Consists of a **75mm** (80mm OD) fresh air intake pipe and a **100mm** (110mm OD) exhaust pipe.



The flue pathway from the fire can have many options allowing for a multitude of cavity shapes and sizes

CONSTRUCTION DETAILS

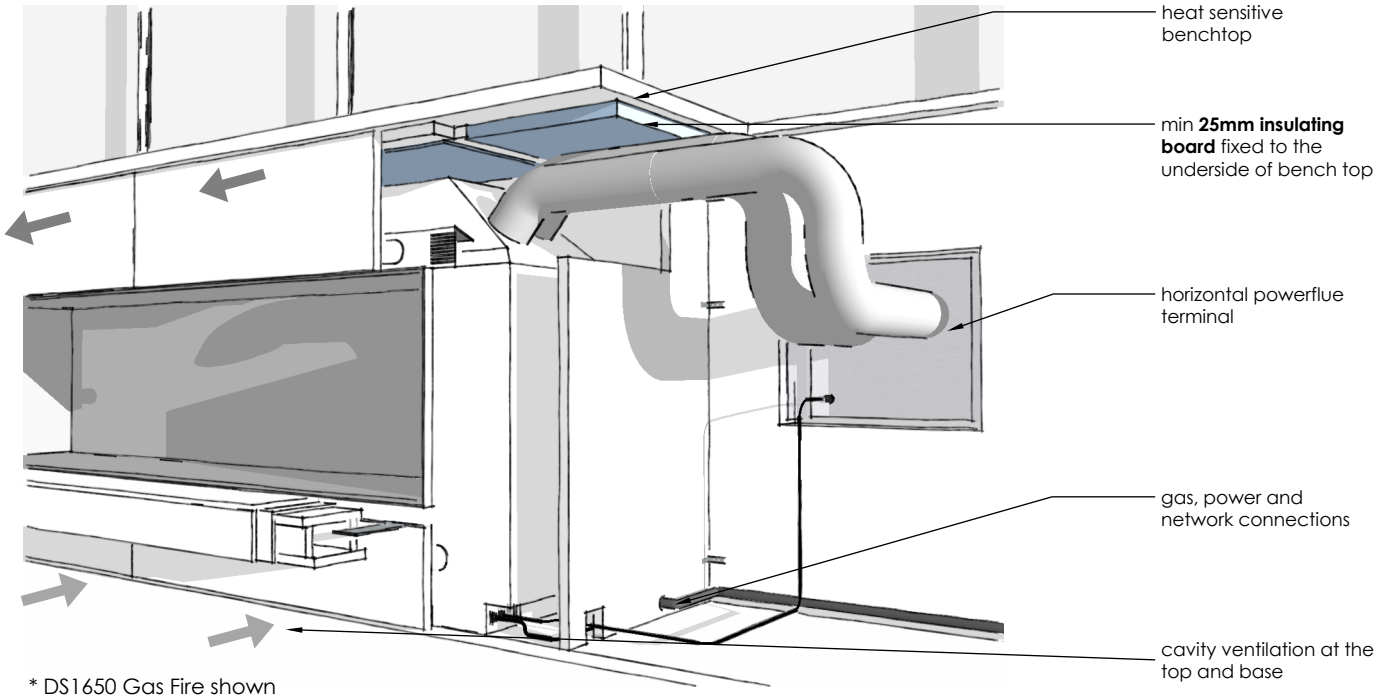




** flue configuration may change cavity dimensions*

	DS1150	DS1400	DS1650	DS1900
Cavity Dimensions:				
Single Sided *(recommended minimum for sealed cavity installations)*	1501W x **875H** x 364D	1793W x **875H** x 364D	2087W x **875H** x 364D	2450W x **928H** x364D
Double Sided *(recommended minimum for sealed cavity installations)*	1501W x **875H** x 350D	1793W x **875H** x 350D	2087W x **875H** x 350D	2450W x **928H** x 350D

** all dimensions in mm*



* DS1650 Gas Fire shown

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