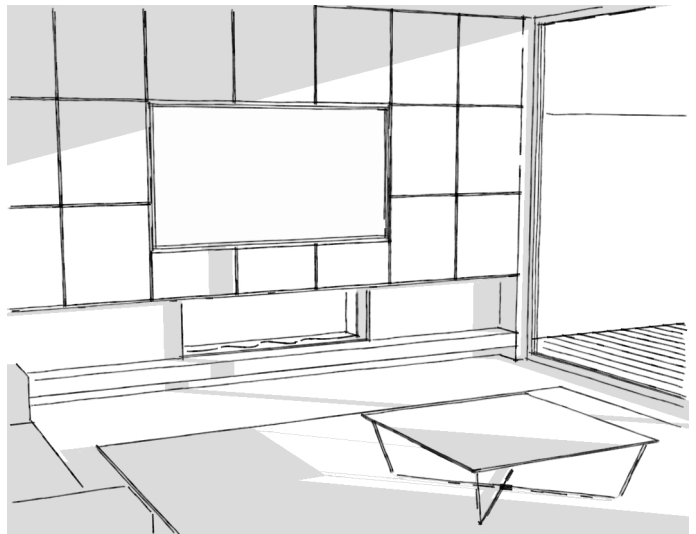


DS Series - Recessed Gas Fire

Recessed fires or **overhangs protruding** above a DS Series Gas Fire can be subject to higher than anticipated levels of heat. Recessing a fire can expose the recessed surfaces to approx. **120°C** while the fire is in operation. Heat sensitive or combustible materials exposed to these levels of heat can have a reduced ability to withstand deformation or degradation, and protection should be offered, or the risk minimised. Whether the structural material forming the recess is combustible or non-combustible will **dictate** the recess design solution. The following guide will help in specifying the additional installation requirements for a recessed fireplace. The details and options provided are **applicable for all four sides** around the glass opening of the fire.

www.escea.com/ds-series



Recessed cavity at the fireplace glass viewing area

DESIGN CONSIDERATIONS

Recessed to meet Mantel Clearances

Using the mantel clearance guidelines* can make a recessed fire installation much simpler (standard building materials used) and also meet safety requirements. The mantel clearance will also apply on the vertical wall surface. *Refer to the DS Series Installation Manual

Recessed at the Glass Opening

When the fire is recessed at the glass opening this will require any combustible structural material, forming the recess in the cavity, to be protected from heat. This is achieved by adding an insulating material behind the finishing material to **reduce heat transfer** into a combustible structure or to have a fully non-combustible structure.

Recessed Away from the Glass Opening

With this method, the wall lining is fixed to the fire for a distance away from the glass opening (to match the mantel clearance). This would allow for wider overall wall depths without complex installation methods or materials. If the structural material forming the recess is combustible and doesn't meet the mantel clearances, protection must still be offered to any combustible material.

Recessed Surface Finish Material

Finishing the recessed surfaces must be completed with a non-combustible, heat resistant material. Refer to the **Escea D-Series Materials Guide** for further information.

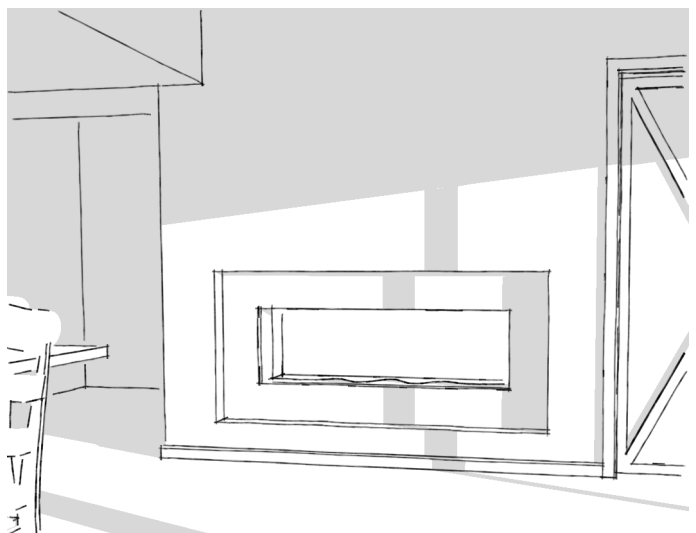
Recessed Surface and Wall Junction

Combustible or heat sensitive materials **must not protrude** below the line of the recessed surface. This junction can be exposed to high levels of heat and full protection must be given to any wall finishes adjacent.

Insulation Board

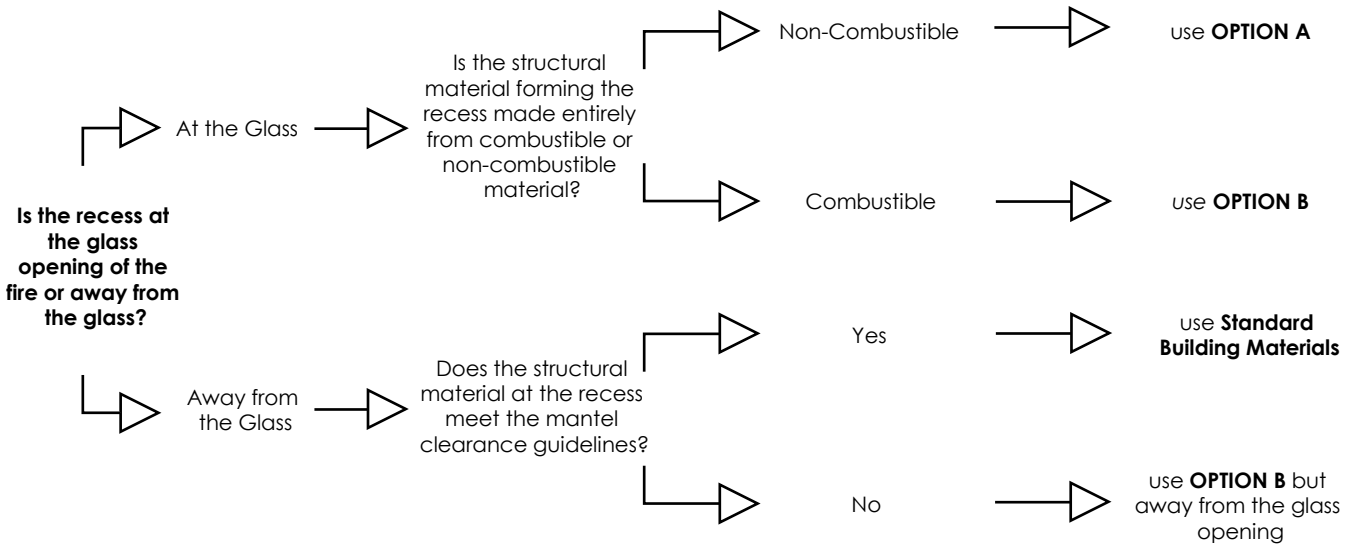
For installations where the fire is to be recessed into a combustible cavity, the entire recess must be lined with an insulating board that is a minimum of either: **25mm Skamotec 225** or **30mm Firemaster 550**.

The insulating board must be continuous from the black trim of the fire to the edge of the recess. Insulation board must be adhesive fixed only to the combustible framing. Seal all joints with Skamotec glue or high temperature RTV sealant. Wet the insulation board prior to adhesive application. This will assist bonding.



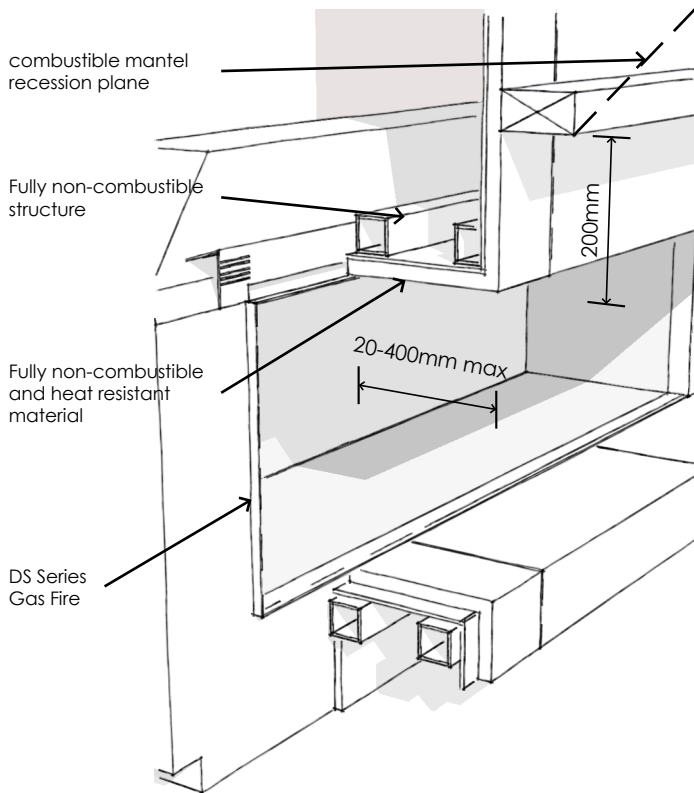
Recessed fire following the mantel clearances

CHIMNEY CAVITY DESIGN WORKFLOW AND CONSTRUCTION

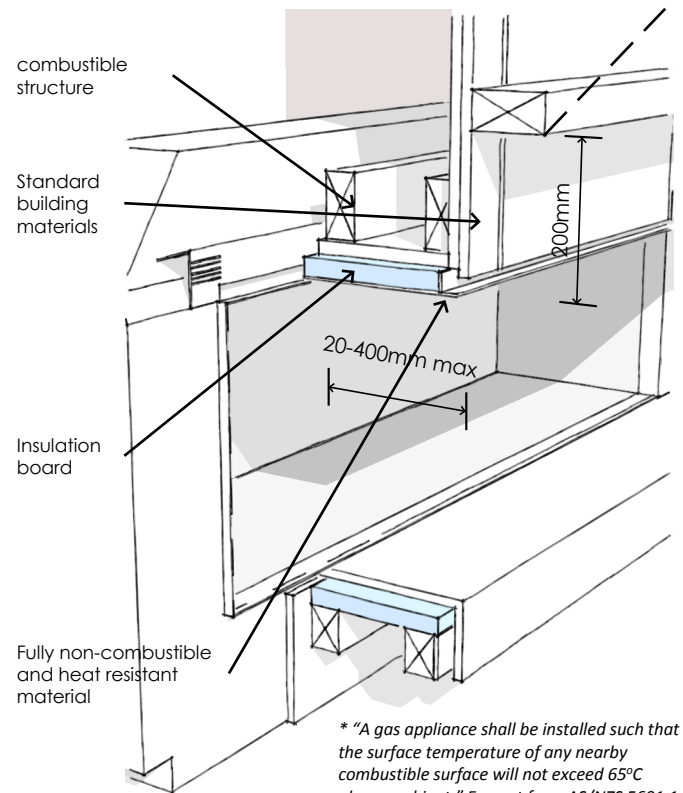


The **Combustible Mantel Recession Plane** represents a tested point at which air temperature meets the maximum surface temperature in accordance with AS/NZS 5601:2013*. This line does not define an area of hot and cold.

Moving away from this line towards the wall above the fire and into the combustible material zone, the surface temperature **decreases**. While moving into the non-combustible material zone would show an **increase** in the surface temperature.



Option A



Option B

* "A gas appliance shall be installed such that the surface temperature of any nearby combustible surface will not exceed 65°C above ambient." Excerpt from AS/NZS 5601.1-2013 Sec. 6.2.5.

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