Natural Gas Type A Installations – Appliances in a Roof Space

AIM
Victorian Building Authority audit statistics reveal that there are many cases of substandard work where gas appliances have been installed in a roof space in a building. The aim of this technical solution is to provide information, and highlight some installation requirements for gas appliances in a roof space.

PLUMBING REGULATIONS 2008
In general terms, gasfitting work is regulated by Part 12A of the Building Act 1993 as outlined in the Plumbing Regulations 2008. Gas appliance installations are required to comply with AS/NZS 5601.1:2013 Gas installations Part 1: General installations with the standard containing a section on, “Installing appliances”.

INSTALLATION
The installation requirements for all appliances are covered in Section 6 of AS/NZS 5601.1 and practitioners should be aware of the general appliance installation requirements. Clause 6.3.11 provides specific requirements where an appliance is installed in a roof space.

LOCATION
• The roof section must be capable of supporting the additional load, and the weight of the installed appliance should not deform any part of the building structure.
• The location of the appliance must permit ease of access for lighting and servicing.
• If the appliance is located beyond safe access from normal steps or ladder, a permanent fixed means of access is required.

ACCESS

INSTALLATION ON A COMBUSTIBLE PLATFORM
Where the appliance is to be installed on a combustible platform and the appliance burner is less than 300mm above the appliance base, then:
• The platform must be covered with fire resistant material (see note 4) to the perimeter of the appliance base and also 300mm beyond the base in front of any louvre or fixed opening into the burner compartment and there must be an air gap of 25mm min between the appliance base and fire resistant material (see Note 5 & Figure 2); or
The platform must be covered with corrosion resistant 0.6mm minimum thick sheet metal to the perimeter of the appliance base and also 300mm beyond the base in front of any louvre or fixed opening into the burner compartment and there must be an air gap of 100mm min. between the sheet metal and the appliance base (see Note 5 & Figure 2).

**ARTIFICIAL LIGHTING**

- Permanent artificial lighting must be provided with the switch located adjacent to the access opening.

**CLEARANCES**

- All manufacturers’ installation and servicing instructions must be followed, including the provision of adequate clearances for servicing and removal of fans, burners etc.
- Flue clearances are vitally important. Make sure adequate flue clearances are maintained. Refer to AS/NZS 5601.1 Section 6 Clause 6.8.12.

**Notes:**

1. This technical solution does not replace the requirements of AS/NZS 5601.1 and installers must reference the current version of AS/NZS 5601.1.
2. Locations of burner and fan openings will vary with different appliances.
3. Condensate drains on some appliances will need to be installed as per manufacturer’s instructions. This technical solution sheet should be read in conjunction with Technical Solution sheets 7.03 and 7.05.
4. “Fire resistant material” is a defined term in AS/NZS 5601.1 and is required to prevent the transfer of heat (thermal conductivity) from the appliance to the platform. Further details to determine the rate of thermal conductivity are given in Appendix C of AS/NZS 5601.1.

5. Some manufacturers may have an exemption to place the appliance on an unprotected surface due to the appliance design being double skinned. Such exemptions would be identified by a data plate affixed to the appliance.

**FIGURE 2 - PLATFORM REQUIREMENTS (ELEVATION VIEW)**