

Gas Standards and Safety

Fact Sheet

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A GUIDE FOR GAS APPLIANCES AIR REQUIREMENTS

This fact sheet provides guidance to installers and designers of gas installations on gas appliance air requirements in accordance with AS/NZS 5601.1: Gas installations.

This guide applies to Clause 6.4.5 of the standard, which provides a means of compliance for ventilation of a room, enclosure, residential garage or plant room containing one or more flued (open flued) or flueless gas appliances.

There are some specific appliance ventilation requirements prescribed in clause 6.4 of AS/NZS 5601.1, for example multiple cookers in schools, decorative flame effect fires, laundry dryers etc.

The guide does not apply to the installation of room sealed appliances or appliances installed in caravans or marine craft.

DEFINITIONS

- **Open flued appliance:**
An indoor appliance designed to be connected to a flue system, its combustion air being drawn from the room or space in which it is installed
- **Room sealed appliance:**
An indoor appliance designed such that it directly discharges combustion products to, and takes air for combustion from, outside the building
- **Flueless appliance:**
An appliance designed to operate without a flue
- **Open Flue:**
A flue system containing a draft diverter or canopy

- **Draft diverter:**

A device, without moving parts, which can be part of the appliance or fitted in the flue of an appliance, at the junction of the primary and secondary flues, for isolating the combustion system from the effects of pressure changes in the flue

- **Enclosure:**

A compartment, enclosed area or a partitioned off space primarily used for the installation of a gas appliance, gas cylinder, meter, gas pressure regulator or other associated equipment

- **Residential garage:**

A garage at a residential premises, which does not include communal car-parking areas or garages used for commercial purposes

- **Plant room:**

A room designed to accommodate one or more gas appliances, or other equipment, in which the gas appliances can be fully maintained, and which is not normally occupied or frequented for extended periods

SPECIAL REQUIREMENTS FLUELESS SPACE HEATERS

As a result of the inherit risks associated with flueless space heaters AS 5601.1 requires a minimum relationship of the MJ/h rating of any heater and volume of the room in which the heater is installed.. Ventilation is not considered as a risk mitigation measure and as a result no flueless space heater can be installed if it exceeds the specified MJ/m³ prescribed by clause 6.4.7 of AS/NZS 5601.1.

QUICK CONNECT DEVICES (BAYONET POINTS)

Gasfitters installing internal bayonet points should advise the owner/occupier of the maximum MJ/hr allowable consumption for any flueless space heater in comparison to the room size in which the quick connect device is installed. Refer to clause 6.4.7 of AS/NZS 5601.1 to determine the maximum MJ/h per cubic metre of room volume.

Gasfitters should clearly detail on the installation Gas Fitting Notice that is provided to the installation owner and the Director of Gas Safety, the maximum allowable flueless gas heater input and whether they have verbally advised the owner/occupier of this. If there is not enough space on the Gas Fitting Notice to adequately detail the gas fitting works undertaken and advice that was given to the Owner/Occupier, then additional sheets should be attached to the Gas Fitting Notice.

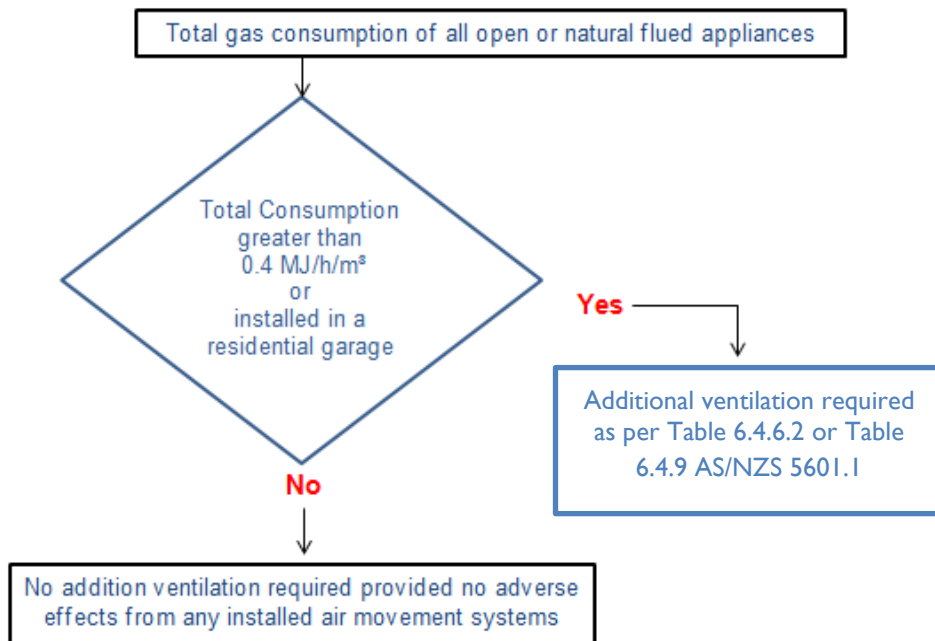
Gasfitters who are unsure of the intended use of the internal bayonet points they are installing should consider the worst case scenario when carrying out the installation – i.e. a 25MJ/h flueless space heater installed at the bayonet point where the space heater is not fitted with a thermostat (0.2 MJ/h/m³ max allowable) in this case the minimum room size is 125m³ (in a house with a standard ceiling height of 2.4m the floor area required would be 7.2m x 7.2m).

SPILLAGE TESTS FOR FLUED APPLIANCES

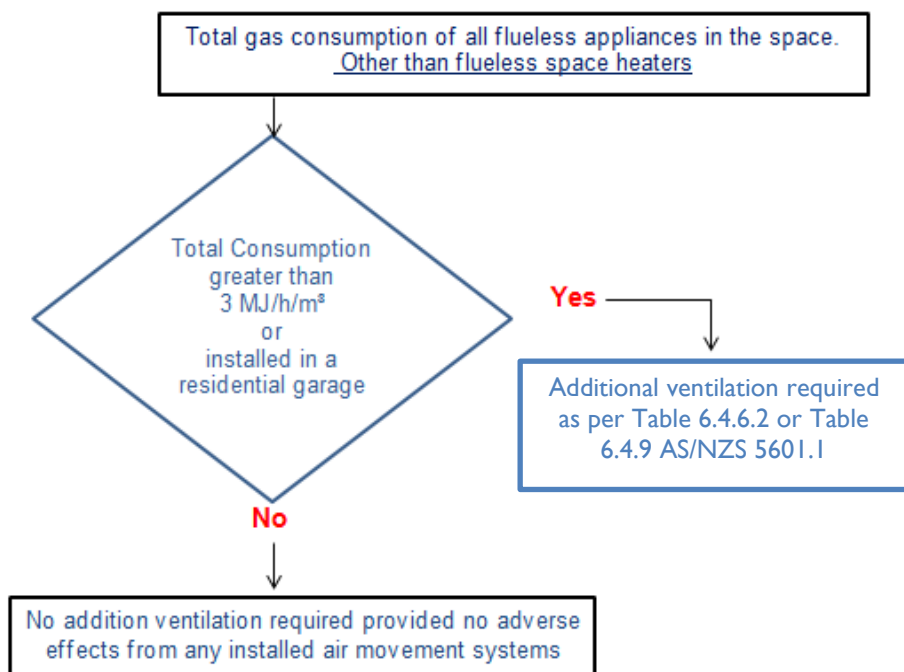
In Australia, the energy rating of buildings has resulted in a reduction in adventitious ventilation and this can impact on the operation of *flued and flueless gas appliances*. Appendix Q of AS/NZS 5601.1 and AS 4575 Gas Appliances – Servicing Type A appliances places obligations on gasfitters to carry out flue spillage checks. The standards provides details on how to check for spillage of combustion products from flued appliances and also considers the effect of mechanical extraction systems.

The following charts simplify as much as possible the appliance air requirements for gas appliances requirements of Clause 6.4.6 of AS/NZS 5601.1.

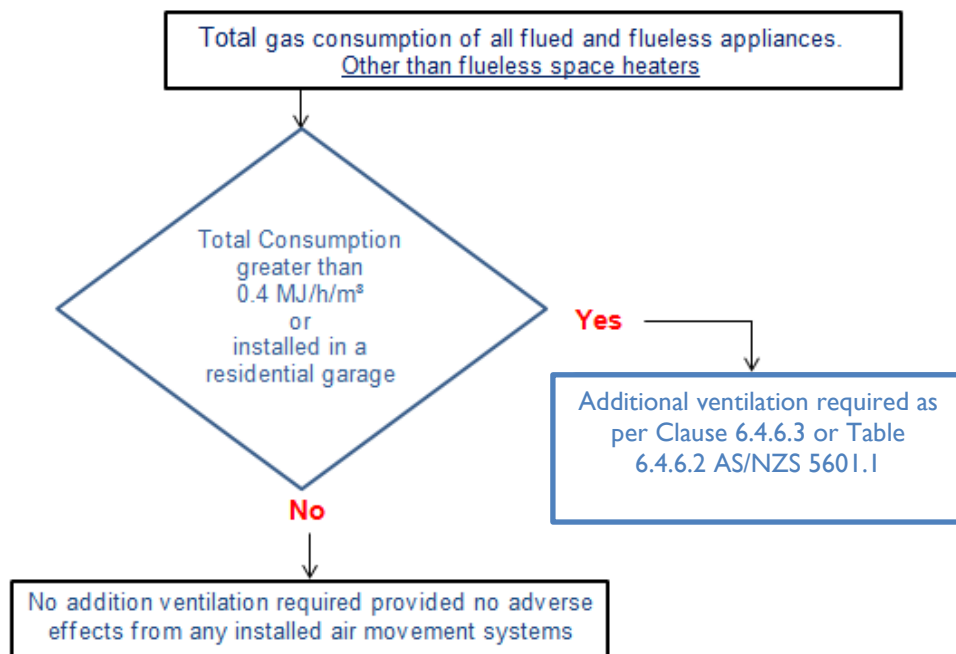
Flued Appliances



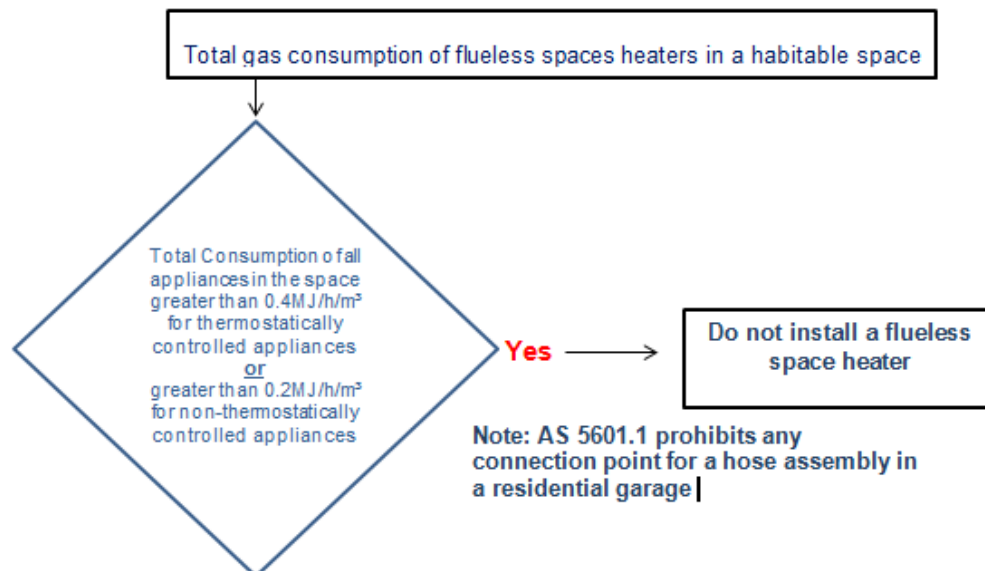
Flueless Appliances other than Flueless Space Heaters



Combination of Flued Appliances and Flueless Appliances other than Flueless Space Heaters



Special requirements for Flueless Space Heaters



FURTHER INFORMATION

For more information contact the Gas Standards and Safety team at Consumer, Building and Occupational Services

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