



Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**
Building and Energy

Safe locations for using gas barbecues and gas patio heaters



- This brochure is designed to advise builders, gas fitters and consumers where gas-fired barbecues and patio heaters may be installed and used safely.

This information does not take precedence over the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999 or the manufacturer's instructions.

Types of gas barbecues

There are three types of gas-fired barbecues.

1 Domestic indoor barbecues

Domestic indoor gas barbecues are designed, manufactured and certified for domestic indoor use only. They must be installed and used strictly in accordance with the manufacturer's instructions.

2 Domestic outdoor barbecues and outdoor gas patio heaters

Domestic outdoor gas barbecues are designed, manufactured and certified for outdoor use only. Outdoor gas patio heaters are radiant heaters designed to heat outdoor areas. Both are designed, manufactured and certified for outdoor use only. They are not subject to the stringent testing for emissions that is applied to domestic indoor appliances, as they are only to be used outdoors in a well-ventilated area.



3 Commercial barbecues

Commercial gas barbecues are designed, manufactured and certified to standards different to those for domestic barbecues. Commercial barbecues are intended for commercial use only, such as in restaurants, hotels and fast food outlets. They are installed under hoods or canopies that extract and filter fats, greases and odours. Recognised certifying bodies, such as the Australian Gas Association (AGA), SAI Global, International Association of Plumbing and Mechanical Officials (IAPMO R&T Oceania) Global-Mark and Vipac have listings of certified gas appliances. Contact details for gas appliance certifying bodies are available on our website at www.dmirs.wa.gov.au/energysafety

Note: Building and Energy does not recommend gas barbecues certified for outdoor use to be modified for use indoors.

Ventilation requirements

Gas barbecues and patio heaters need adequate ventilation to ensure there is sufficient air for combustion, for gas to burn safely and to dilute the products of combustion to safe levels.

If barbecues and patio heaters are used in an outdoor area, there is usually adequate natural ventilation.

However, there may be some 'semi-outdoor' situations where there is inadequate ventilation and the use of barbecues in these areas is not recommended.

Indoor barbecues are required to have adequate mechanical ventilation.

What is an outdoor area?

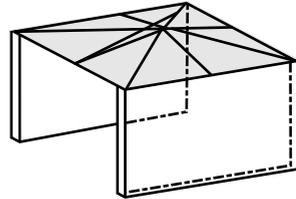
An outdoor area is an open-air situation that is not obstructed by buildings or other structures, facilitating correct combustion and allowing products of combustion to be readily dispersed into the atmosphere.

An alfresco area or balcony is considered outdoors when it is an open-air situation with natural ventilation. This ensures stagnant areas do not form, as these prevent the products of combustion from being rapidly dispersed by wind and natural convection. In the unlikely event of a gas leak occurring, a well-ventilated area will allow escaping gases to rapidly disperse.

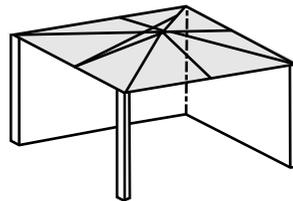
The following situations are considered to provide the natural ventilation required for an outdoor domestic barbecue or patio heater to be used:

- Four open sides with a roof or overhead cover.
- Four enclosed sides (walls) without a roof or overhead cover.
- Two parallel walls or two walls at right angles to each other with a roof or overhead cover.
- Three walls, with the one open side being at least 25 per cent of the total perimeter and the remaining three walls having an area of 30 per cent or more of unrestricted opening, with a roof or overhead cover.

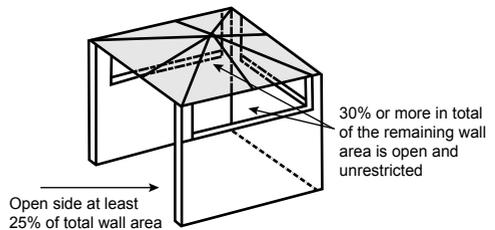
For these installations, the barbecue may be connected by a flexible hose to a natural gas bayonet point or similar fitting, through fixed connections to gas piping or by connection to an LP Gas cylinder.



Parallel walls



Right angle walls



Balconies and verandas

An outdoor gas barbecue or patio heater may be installed and used on a balcony or veranda, if by location and use, it will not cause a hazard and the manufacturer's instructions allow for such use. Some barbecues are designed specifically for these areas where space is restricted. It may also be necessary to consult local building laws before installing or using a gas barbecue on a balcony or veranda.

A balcony or veranda is considered an acceptable area if 20 per cent of the wall area (sides + back + front) remains permanently open and unrestricted.

Note: This area is acceptable for barbecues and patio heaters only, the use of other outdoor gas appliances is not permitted.

It is recommended that access doors or windows to the balcony or veranda be closed while the barbecue is in use.

Other requirements for gas barbecues

Other requirements for gas barbecues installed indoors or outdoors are:

- clearances between the gas barbecue and the building must meet:
 - the barbecue manufacturer's installation instructions; and
 - the regulatory requirements of the Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999.
- a minimum vertical clearance of:
 - 1,200mm for domestic barbecues; or

- 1,350mm for commercial barbecues

is to be maintained between the barbecue cooking surface and the ceiling, roof or overhead cover to avoid the risk of combustion occurring on surfaces laden with grease deposits.

A commercial gas barbecue may be permitted indoors in a residence (an indoor domestic situation) provided the following requirements are met:

- A mechanical ventilation system complying with Local Government requirements (AS 1668.2, Ventilation design for indoor air contaminant control) is installed. The exhaust system is to be interlocked to the appliance gas supply.
- The installation meets commercial catering equipment requirements, including clearances and protection of combustible surfaces as specified in AS/NZS 5601, Gas installations.



A commercial gas barbecue with mechanical ventilation.

- The gas supply piping to the barbecue is permanently connected and fitted with a clearly identified manual isolating valve located in a safe, accessible position remote from the barbecue.

Note: Before installing a commercial gas barbecue inside a domestic residence, it is recommended that advice on the installation be obtained from the relevant gas supplier.

What is an outdoor gas patio heater

An outdoor gas patio heater is usually a flue-less space heater – that is, a space heater – designed to discharge its flue gases into the room or space it is heating. The patio heater is specifically designed for heating outdoor areas, such as in domestic premises, restaurants and cafes.

Outdoor gas patio heaters may operate on natural gas via a flexible hose connected to a bayonet point or LP Gas.

This type of gas heater has become popular because it is an effective method for heating a localised outdoor area.



Safe operation

To assist in ensuring safe use of these gas appliances follow these basic precautions:

- Read the manufacturer's instructions prior to use.
- Locate the appliance away from combustibles or materials that may shatter.
- Ensure the appliance is stable.
- Have the appliance serviced by a qualified gas fitter in accordance with the manufacturer's instructions.

Cylinder storage

- Turn the appliance off at the cylinder when not in use.
- Store outdoors in an upright position.
- Avoid storing near chemicals or flammable materials.

There is a requirement under 'Minor Storage' in AS 1596 that limits the LP Gas cylinder or cylinders that can be used or stored on a balcony to 10kg.

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The Australian Gas Association

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(PO Box 122)
Braeside Victoria 3195
Phone: 03 9580 4500
Fax: 03 9580 5500
Email: office@aga.asn.au
Website: www.aga.asn.au

SAI Global

Level 2, 66 St Georges Terrace
Perth Western Australia 6000
Phone: 08 9214 6000
Fax: 08 9266 2778
Email: epropertysupport@saiglobal.com
Website: www.saiglobal.com/product-certification

**IAPMO R&T Oceana
(The International Association of Plumbing and Mechanical Officials)
trading as IAPMO Oceana**

1040 Dandenong Road
Carnegie Victoria 3163
Phone: 03 8684 9580
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Email: quotes@iapmooceana.org
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Regional offices

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South-West	(08) 9722 2888

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