

Sizing a wood heater

How do I decide which wood heater is the correct size for the space I want to heat?

As a rule, you should select a heater which provides a maximum heat output of one to 1.5 kilowatts (kW) for each 10 m² of floor space you wish to heat.

For example, if you wish to heat 50 m² of living space, the heater should have a maximum output of 5–8 kW.

The metal compliance plate located on the back of a compliant wood heater shows the MAXIMUM AVERAGE HEAT OUTPUT BURNING HARDWOOD XX kW. Accurate sizing is critical. An oversized heater will produce too much heat for the room when operated correctly. If operated on a low setting, it may create excessive smoke. A heater which is too small will not be able to satisfactorily heat the area.

The compliance plate also shows the OVERALL AVERAGE EFFICIENCY BURNING HARDWOOD xx%. You can use this number to compare the efficiency of different heating appliances. The higher the number, the more efficiently your wood heater will operate.

This information is based on the assumption that you have installed adequate insulation and window protection to maintain the heat output from the chosen model.

Compliant wood heaters use less wood, save you money and help keep our environment and community healthy.



For more information

on wood heaters and air pollution, visit the Department of Water and Environmental Regulation's website:

www.dwer.wa.gov.au/burnwise

or email

burnwise@dwer.wa.gov.au

Phone: 6364 7000

More information on domestic wood smoke is also available from your local government's environmental health section.

Your local contact is:



Buying and selling wood heaters in Western Australia



Government of Western Australia
Department of Water and Environmental Regulation

All wood heaters for sale in Western Australia must comply with state regulations.

The *Environmental Protection (Solid Fuel and Firewood) Regulations 2018* prohibit the sale of wood heaters that do not comply with AS/NZS 4012: 2014 Domestic solid fuel burning appliances — Method for determination of power output and efficiency; and AS/NZS 4013: 2014 Domestic solid fuel burning appliances — Method for determination of flue gas emission (new or second hand).

The standards were developed to reduce particulate emissions from wood heaters as they are a major source of air pollution, especially during winter.

How do I know if a wood heater is compliant?

Wood heaters sold in Western Australia must meet the current Australian Standards (AS/NZS 4012:2014 and AS/NZS 4013:2014). These standards sets requirements for efficiency and particulate emissions. The updated Australian Standards provide for a phased improvement in efficiency and particulate emissions to reduce health impacts caused by smoke from wood heaters.

To ensure that the heater you are considering purchasing meets the current requirements, the values for the “overall average efficiency” and “particulate emissions factor” (both marked on the compliance plate on the rear of the heater) must meet the following criteria:

	No catalytic combustor		With catalytic combustor	
	Prior to 7 Aug 2019	From 8 Aug 2019	Prior to 7 Aug 2019	From 8 Aug 2019
Particulate emissions factor	2.5g/kg or less	1.5g/kg or less	1.4g/kg or less	0.8g/kg or less
Overall average efficiency	55% or greater	60% or greater	55% or greater	60% or greater

It is illegal for anyone to sell new or used non-compliant wood heaters in Western Australia.

It is also illegal for anyone to offer for sale or to sell any wood heater that has been altered or modified in any way.

There are some wood heater models that are exempt from the regulations. These include cooking appliances and appliances intended solely for water heating. To be exempt, a wood-fired cooking appliance must have at least one hot plate and an oven with a volume of 28 L or more.

How can I find out what wood heater models are compliant?

A current list of compliant wood heater models can be found on the Australian Home Heating Association (AHHA) website: www.homeheat.com.au or by phoning its head office in South Australia on (08) 8351 9288.

Front view

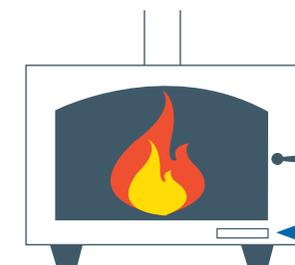
Look for the words ‘BURN ONLY’ followed by the specified fuels or combinations of fuels on a label attached to the front of the unit. The label must be visible when the fuel door is open.

On the panel to the right is an example of a typical wood heater and the information that must be provided for it to comply with AS/NZS 4012:2014 and AS/NZS 4013:2014.

Back view

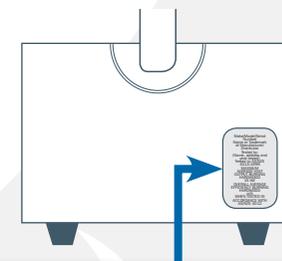
Look for a metal plate or sticker which contains the following information. Note, additional information is also permitted and wording does not have to appear in this order.

Front view



Look for a label stating: **BURN ONLY** followed by the specified fuels or combinations of fuels. This must be marked in letters not less than three mm in height.

Back view



Or sufficient information to provide adequate information for replacement of parts and servicing.

Must be marked in letters not less than three mm in height.

If YES, catalytic combustor type, model and serial number or sufficient information to provide adequate information for replacement of parts and servicing.

MAKE: (name or trademark of manufacturer)
TYPE: (eg. Freestanding, Freestanding with wetback built-in)
MODEL:
SERIAL NO: (can also be marked on the appliance on a separate plate)
TESTED BY: (Laboratory name) (Address of Testing Authority)
TEST REPORT NO: (Test report no. & Date)
WHEN TESTED IN ACCORDANCE WITH AS/NZS 4012:2014 & AS/NZS 4013:2014
MAXIMUM AVERAGE HEAT OUTPUT BURNING HARDWOOD –XX kW
OVERALL AVERAGE EFFICIENCY BURNING HARDWOOD –XX %
PARTICULATE EMISSIONS FACTOR –XX g/kg
CATALYTIC COMBUSTOR (YES/NO):