



**BK5**

# BIOETHANOL BURNERS

ecosmar<sup>+</sup>  
Fire

[www.ecosmartfire.com](http://www.ecosmartfire.com)

## BIOETHANOL BURNERS

This sophisticated burner design is the most independently tested of the range and has special safety features that eliminate many of the hazards common with most other brands on the market. The BK Series contains a number of unique design elements, including:

- > A separate filling point and jerry can equipped with a no-spill dangerous goods spout, which allows the burner to be refuelled safely and easily. The spout rests on a plate within the filling point to decrease the risk of over-filling the burner and eliminating the usual splash and spills that often occur when fuel is decanted into the burner.
- > An additional safety measure that prevents the filling point from being accessed while the slider is open. This ensures the flame is fully extinguished before the burner can be refuelled.
- > Perfectly aligned slider mechanism, filling point and fuelling system that allows an unobstructed view of the burner tank. This ensures the burner is not filled above the maximum capacity line.
- > Easy flame control that allows you to regulate the amount of heat being generated, and therefore the amount of fuel consumed. This results in a highly economical and efficient burner.
- > Operational accessories designed for safe and ergonomic fire ignition and extinguishing. BK's minimalist design and ability to withstand extreme heat result in consistent and reliable operation at all temperatures and permitted fuel levels.
- > A deep-draw fabrication process that eliminates the potential for dangerous leaks, while the standard provision of a twin skin to hold the burner adds further peace of mind.

### > INCLUDED ACCESSORIES



5 Litre Jerry Can



Lighting Rod + Lighter



Operations Manual



Top Tray

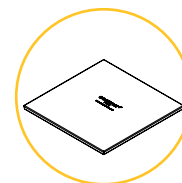
### OPTIONAL ACCESSORIES



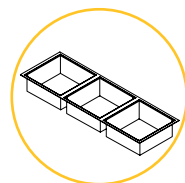
Fire Screens



Fire Screen Fixings



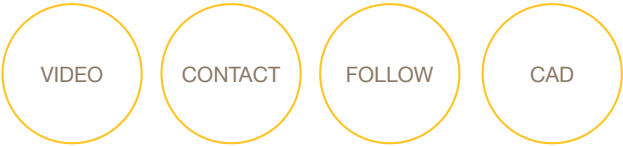
Protective Burner Cover



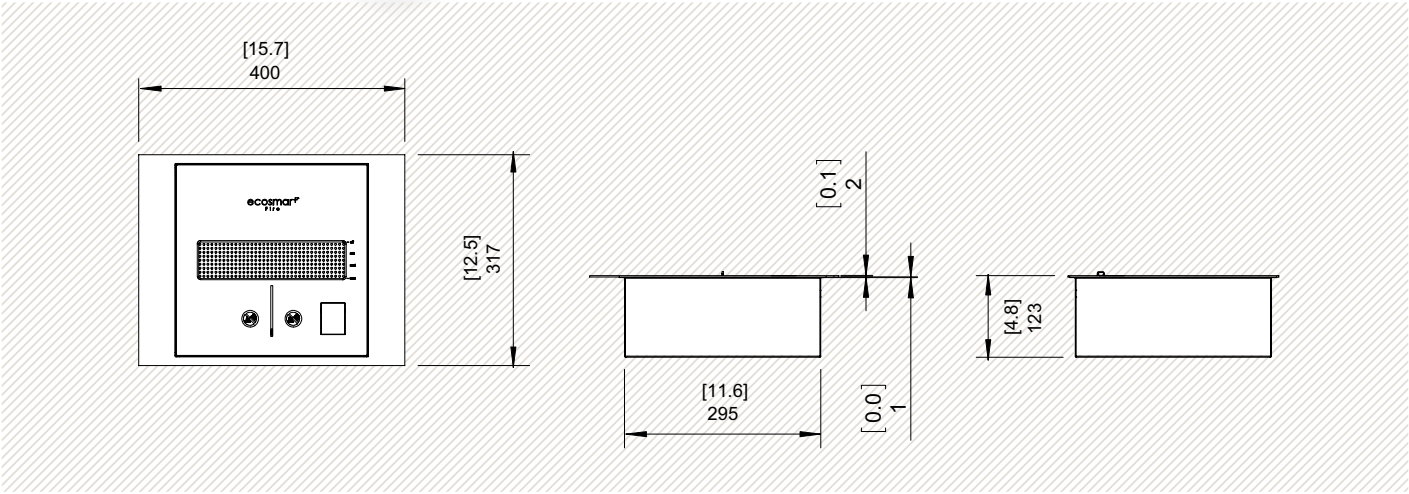
Triple Top Tray

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BIOETHANOL BURNERS



Awards	2004 Winner Design Mark Australian International Design Awards Sydney (AUS)
Fuel Type	Bioethanol
Volume Capacity	5 Litres [1.3 Gallons]
Heats on Average	Over 35m <sup>2</sup> [376.7ft <sup>2</sup> ]
Fuel Consumption	0.64 Ltr/hr [0.17 Gal/hr] on MAX
Thermal Output Net (MAX)	14 MJ/hr - 13000 BTU/hr - 3.5 kW
Burn Time on MAX	7 hours, 30 minutes (Approx) <small>*The efficiency data outlined above is indicative only and may vary depending on the model purchased, weather conditions, installation and bioethanol used. Adding baffles (if applicable) and/or regulating the flame <b>increases</b> burn times.</small>
Ventilation	The room cannot be less than 70m <sup>3</sup> [2472ft <sup>3</sup> ] per burner.
Dimensions (excluding Top Tray)	H 113mm W 290mm D 290mm H 4.4in W 11.4in D 11.4in
Weight	5.1kg [11.3lbs]
Dimensions (including Top Tray)	H 123mm W 400mm D 317mm H 4.8in W 15.7in D 12.5in
Weight	7.3kg [16.1lbs]
Materials	Stainless Steel
Application	Indoor & Outdoor
Read the manual carefully before operating the burner.	
Physical model dimensions should be verified against cut out dimensions BEFORE installation begins to confirm tolerances align.	



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# CLEARANCES AND INSTALLATION

Ensure that the mouth of the flame is positioned a minimum of 1500mm [59.1in] away from curtains, flammable materials, and other sources of ignition. Be aware of drafts. The floor must be level and the Burner positioned on a flat surface. The Burner must only be placed into non-combustible materials and must be installed in accordance with the outlined safety requirements and clearances. Please send drawings to your local representative to confirm the setting complies with the manufacturer's requirements prior to installation.

## Burner Clearances

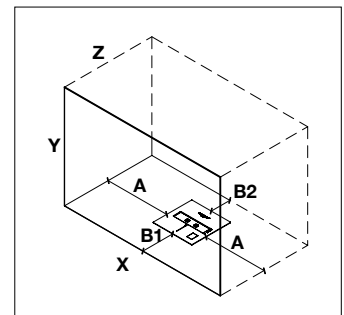
EcoSmart™ Fire Burners can be installed into two (2) types of settings:

A. Those that are encased by non-combustible materials similar to that which you would find in a traditional masonry set-up. We refer to this installation type as **"WITHIN A FIREBOX SETTING"**

B. Those that are not encased by non-combustible materials and set up in a more modern setting without sides or a top. We refer to this installation type as **"WITHOUT A FIREBOX SETTING"**

### A. INSERTING WITHIN A FIREBOX SETTING

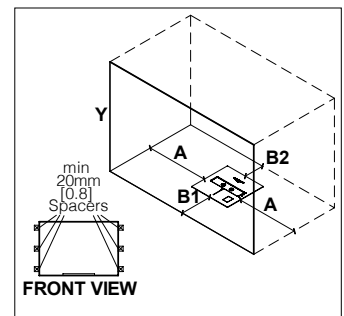
BURNERS	Firebox Width (X)	Firebox Depth (Z)	Overhead (Y)	Rear (B2)	Front (B1)
BK SERIES	650mm [25.6in]	365mm [14.4in]	650mm [25.6in]	30mm [1.2in]	45mm [1.8in]
XL900	1200mm [47.2in]	350mm [13.8in]	500mm [19.7in]	40mm [1.6in]	50mm [2.0in]
XL700	1000mm [39.4in]	350mm [13.8in]	500mm [19.7in]	40mm [1.6in]	50mm [2.0in]
XL500	800mm [31.5in]	350mm [13.8in]	500mm [19.7in]	40mm [1.6in]	50mm [2.0in]
XS340	450mm [17.7in]	300mm [11.8in]	450mm [17.7in]	65mm [2.6in]	45mm [1.8in]
AB8	650mm [25.6in]	450mm [17.7in]	800mm [31.5in]	30mm [1.2in]	45mm [1.8in]
AB3	400mm [15.7in]	350mm [13.8in]	500mm [19.7in]	30mm [1.2in]	45mm [1.8in]



e.g BK SERIES

### B. INSERTING WITHOUT A FIREBOX SETTING

BURNERS	Overhead (Y)	Front (B1)	Nearest Combustible Radius (A)	Rear (B2) (Only if Non-combustible)*
BK SERIES	1500mm [59.1in]	45mm [1.8in]	600mm [23.6in]	30mm [1.2in]
XL900	1500mm [59.1in]	50mm [2.0in]	600mm [23.6in]	40mm [1.6in]
XL700	1500mm [59.1in]	50mm [2.0in]	600mm [23.6in]	40mm [1.6in]
XL500	1500mm [59.1in]	50mm [2.0in]	600mm [23.6in]	40mm [1.6in]
XS340	1500mm [59.1in]	45mm [1.8in]	600mm [23.6in]	65mm [2.6in]
AB8	1500mm [59.1in]	45mm [1.8in]	600mm [23.6in]	30mm [1.2in]
AB3	1500mm [59.1in]	45mm [1.8in]	600mm [23.6in]	30mm [1.2in]



e.g BK SERIES

**\*WARNING! Fire hazard. The rear wall should be non-combustible. If it is combustible, you must allow at least 600mm (23.6in.) clearance between the wall and the rear of the EcoSmart™ Fire.**

The VB2 burner is specially designed as a 'drop-in' burner system to a purpose-built, existing or new, fireplace setting. You should seek confirmation from the insert manufacturer and install the fireplace according to the manufacturers instructions before inserting the burner.

Custom made fireboxes must:

- Be made out of a non-combustible material such as stainless steel
- Be constructed to accommodate a Top Tray
- Have built in spacers of 20mm [0.8in] on all sides to ensure that it does not sit directly against any combustible materials and an air gap is incorporated for insulation around the box construction. The use of insulation wool is permitted.

**The Fire Company Pty Ltd is not liable for any injuries or damages sustained through the use of custom made or privately commissioned Fireboxes. The Fire Company Pty Ltd recommends using the Burner in a Firebox manufactured by The Fire Company Pty Ltd only. The Fire Company Pty Ltd is not liable for any injuries or damages sustained through the use of custom made or privately commissioned Fireboxes. A fire extinguisher is strongly recommended.**



## Environmental Conditions

**WARNING:** Ensure that your fire is positioned away from flammable materials and other sources of ignition at all times. Pay very close attention to positioning the fire away from items that may move as a result of wind and drafts. For example trees/branches/curtains/paper and the like.

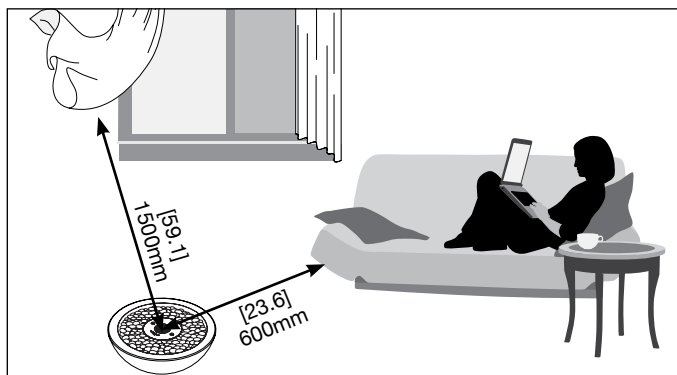
The base of the burner within the model must never come into direct contact with flammable materials.

Side clearances to fixed and stable furniture items that are not susceptible to movement such as lounges or patio furniture must remain a minimum of 600mm [23.6in] away from the flame at all times.

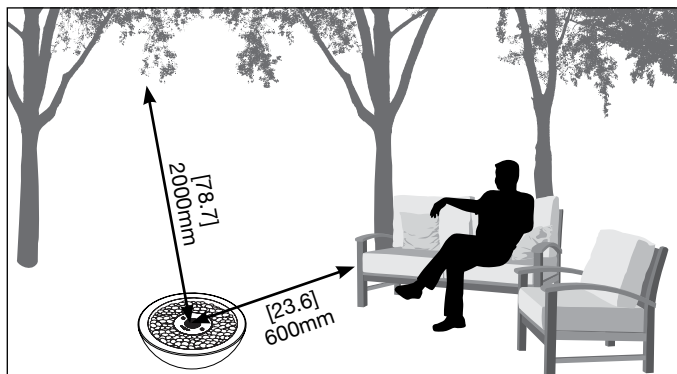
Overhead clearances to items that are susceptible to movement (e.g. Curtains/Trees) must remain a minimum of:

- Indoors: 1500mm [59.1in] away from the flame at all times.
- Outdoors: 2000mm [78.7in] away from the flame at all times.

Note: Stainless steel will rust or corrode over time if contamination or debris is not cleaned or removed immediately. When not in use, it is recommended that you protect your fireplace from water damage or corrosion with a protective cover and always use the Burner Lid included with your model to safeguard the burner.



Indoor Clearances



Outdoor Clearances

## Installation

There are many different variations available for installing the Burner. In all cases, the Burner must be:

- Installed into non-combustible material ONLY, such as stainless steel, concrete, brick and stone

- Installed after all gas connections or pipelines in the area are disconnected and made safe by an appropriately qualified and licensed professional
- Installed and operated in a fixed and secure position before filling, lighting and operating. Burners are not meant to be moved because movement creates the risk of accidental fuel spillages. If you move the Burner, make sure no fuel was spilled before you ignite the Burner.
- Models from each range (Grate/Renovator/Designer/Outdoor) have varied installation requirements. Refer to the specific section of the manual for the detailed requirements of the model purchased.

The best location for your EcoSmart Fire is:

- In a large, open space at least 1500mm [59.1in] away from any combustible materials, such as curtains, wallpaper, veneer, etc.
- On a level floor – the floor can be made of any material.
- In a firebox made of non-combustible materials, such as steel, concrete, brick, or stone.
- Positioned so that any accumulation of weather debris/pooling of water is eliminated.
- NOT INSTALLED DIRECTLY BESIDE OR NEAR WALLPAPER, LAMINATE, VENEER OR ANY SURFACE THAT HAS NOT BEEN FIRE RATED (THE HEAT WILL IMPACT THE MATERIAL). REFER TO PRODUCT SPECIFICATION OF WALLPAPER, LAMINATE, VENEER OR GLUE FOR HEAT TOLERANCES.
- Installed into a setting that has a straight back – the incorporation of angled backs alters the aerodynamics of the flame environment and could lead to an unstable flame behaviour.
- Fitted within a Top Tray that is not more than 200% the size of the total Burner size.

Please note that:

- Any furniture items or fittings directly above or beside the Burner installation must be deemed suitable for heat tolerances by their manufacturer e.g. electronic items including screens and entertainment equipment, wallpaper, laminates, veneers, glues and reconstituted materials.
- A heat reflective panel made of non-combustible material (ideally stainless steel) must be installed as the surround and top of the fireplace setting to assist in heat distribution. The Fire Company Pty Ltd is not liable for any injuries or damages sustained through the use of panels not manufactured by The Fire Company Pty Ltd.
- Glass or mirrored surfaces near the Burner installation must be toughened.
- In some countries, national or rural restrictions may apply and/or approvals from building authorities may be required. Please ensure you contact the appropriate parties before installing your EcoSmart™ Fire.

**WARNING! FIRE HAZARD. DO NOT PACK REQUIRED AIR SPACES, (THE AREA BETWEEN THE FIREBOX AND THE SPACER) WITH INSULATION OR OTHER MATERIALS. THE AIR SPACES ARE NEEDED FOR PROPER VENTILATION OF THE BURNER.**

**A fire extinguisher is strongly recommended.**

## CONVERTING AN EXISTING FIREPLACE:

If inserting an Burner into an existing masonry fireplace, adjust the damper within the existing fireplace in order to keep the heat from escaping through the flue.

## Top Tray

The incorporation of a Top Tray into your setting protects against heat transference and aids in the collection of accidental spillage. Some models come with Top Trays, others do not. Top Trays are available as an accessory through The Fire Company or your local distributor.

**The Fire Company Pty Ltd is not liable for any injuries or damages sustained through the use of Top Trays not manufactured by The Fire Company Pty Ltd.**

When installing multiple Burners a maximum of three [3] Burners may be installed into the one Top Tray (excluding the XL Series which can only have one [1] Burner per Top Tray). Special considerations should be made to multiple Burner installations in order to avoid potential accidents. Contact your local distributor about design and analysis advice to minimise adverse impacts.

Top Trays provided by The Fire Company are fitted directly into the Burner shelf from above. The Burner is then inserted into the Top Tray setting and adjusted (using the levelling screws) to sit flush.

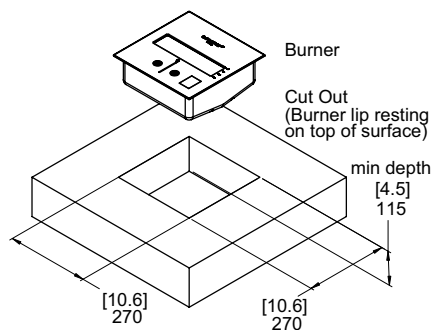
The size of the cut-out should not give more than 5mm [0.196in] clearance. Top Trays must not be more than 200% of the total size of the corresponding Burner.

**Please take the time to double check all dimensions between the burner received and the dimensions outlined to ensure you are referencing the correct model, and so that production tolerances are taken into consideration.**

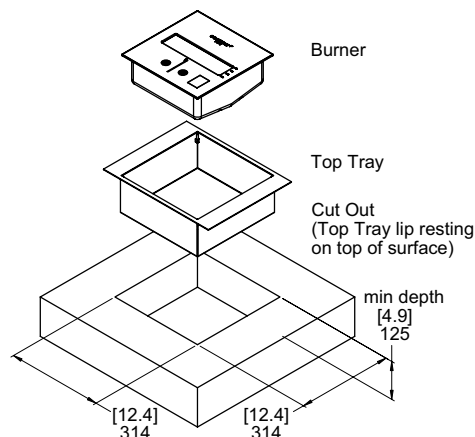
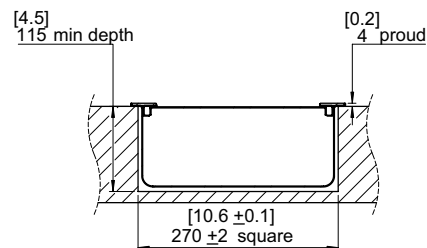
## Cut Out Dimensions

### BK5 & BK3

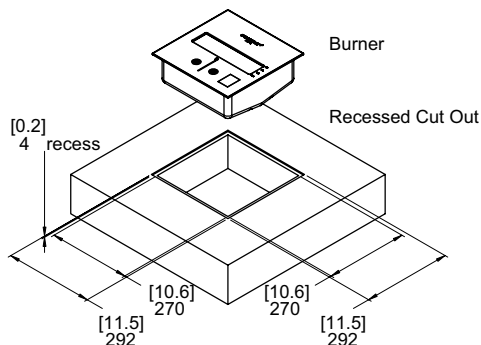
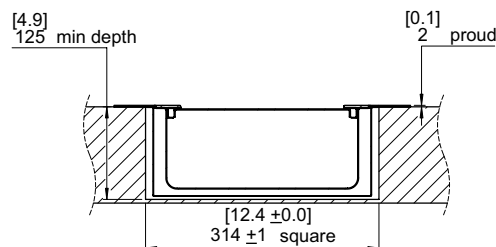
Physical model dimensions should be verified against cut out dimensions BEFORE installation begins to confirm tolerances align.



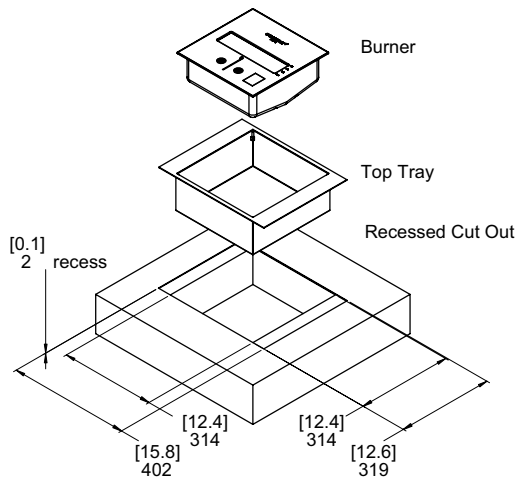
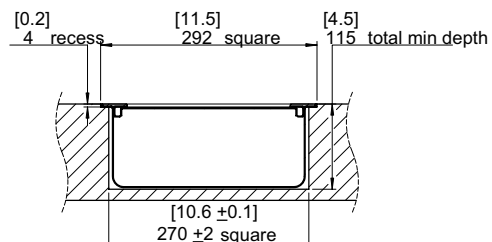
#### Burner WITHOUT Top Tray On Top/Raised



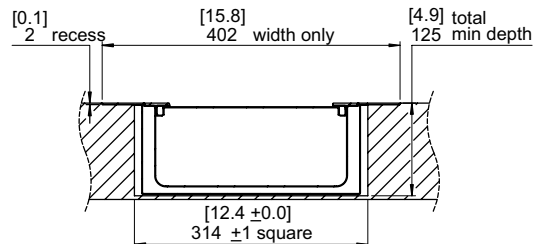
#### Burner WITH Top Tray On Top/Raised



#### Burner WITHOUT Top Tray Recessed/Flush



#### Burner WITH Top Tray Recessed/Flush



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