

# INSTALLATION AND OPERATION MANUAL FOR BUILT-IN BURNER

Item Number: BIO316, BIO317, BIO322, BIO323, BIO324, BIO339, BIO340, BIO341

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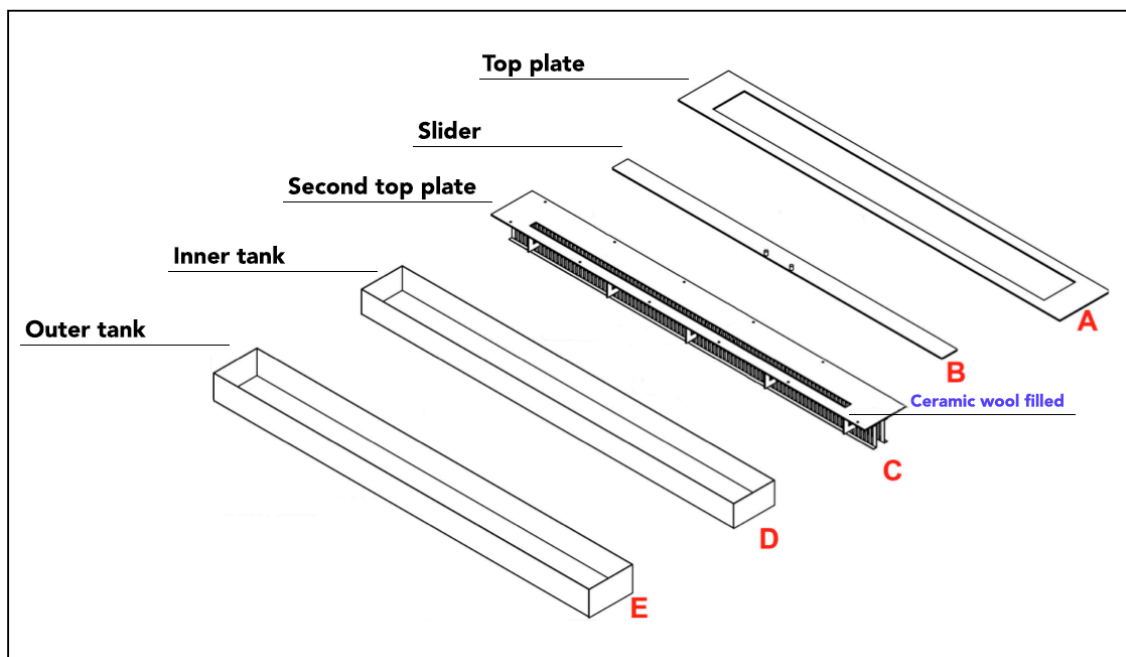
# 1. Technical details

## a. Technical data

Item Number	Product Size (mm)	Capacity	Heat Output (kw/h)	Burn time
BIO316	450*160*70.2	2.5 liters	2.46	Up to 4 hours
BIO324	600*160*80.2	3.5 liters	3.28	Up to 5 hours
BIO317	800*160*80.2	4 liters	4.92	Up to 6 hours
BIO339	900*160*80.2	4.5 liters	5.74	Up to 6 hours
BIO322	1000*160*80.2	5 liters	6.56	Up to 7 hours
BIO323	1200*160*80.2	6 liters	8.61	Up to 8 hours
BIO340	1500*160*80.2	8 liters	8.90	Up to 8 hours
BIO341	1800*160*80.2	10 liters	9.5	8 - 10 hours

## b. Structure and material

The bioethanol burner consists of top plate, slider, second top, inner tank and outer tank.

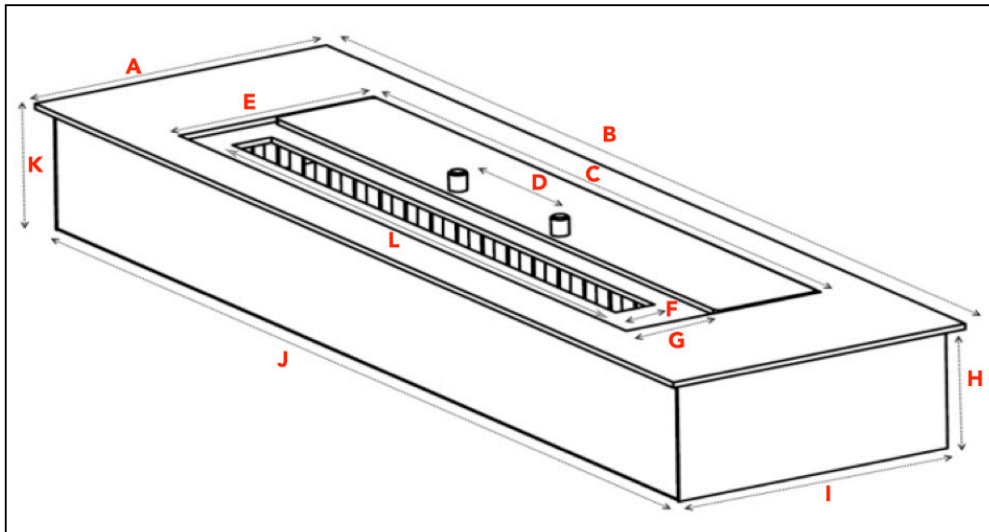


The material of **A**, **B** and **C** are SS430 stainless steel.

- For 45cm and 60cm the thickness of A, B and C is 3mm.
- For 80cm, 90cm, 100cm and 120cm the thickness of A, B and C is 4mm.

The material of **D** and **E** is 1.2mm thick SS430 stainless steel.

## 2. Detailed dimensions



Item Number	A	B	C	D	E	F
BIO316	160	450	340	88	110	20
BIO324	160	600	500	88	110	20
BIO317	160	800	650	88	110	20
BIO339	160	900	750	88	110	20
BIO322	160	1000	850	88	110	20
BIO323	160	1200	1000	88	110	20
BIO340	160	1500	1250	88	110	20
BIO341	160	1800	1500	88	110	20

Item Number	G	H	I	J	K	L
BIO316	50	67	135	425.4	70.2	320
BIO324	50	77	135	575.4	80.2	450
BIO317	50	77	135	775.4	80.2	600
BIO339	50	77	135	875.4	80.2	700
BIO322	50	77	135	975.4	80.2	800
BIO323	50	77	135	1175.4	80.2	950
BIO340	50	77	135	1475.4	80.2	1200
BIO341	50	77	135	1775.4	80.2	1450

**Note.** The dimensions of the final product may have a +2mm tolerance because of the processing technology. Therefore please use your actual products dimensions when building your fireplace.

# 3. Minimum distance of safety

When building your own bio ethanol fireplace, there are some safety precautions you need to follow. The fireplace is to be built with non-combustible materials like concrete, stone, brick, etc.

Furthermore there are some minimum requirements about distances to flammable objects and materials. The requirements are as follows:

## Minimum dimensions of safety with non-flammable materials

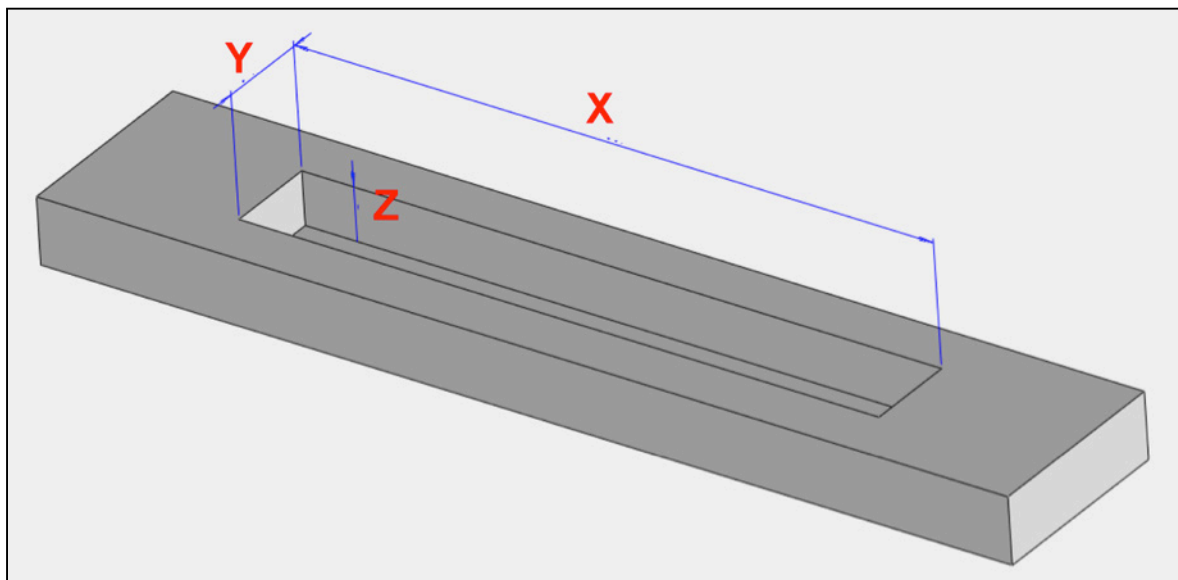
Above: 600mm; 23.6 inch.

Edges: 80mm; 3.2 inch.

Back: 60mm; 2.5 inch.

# 4. Built-in dimensions

When building your own bio burner into a frame, you need to cut a suitable area for putting the burner into. The required dimensions differs according to the burner and building method; one is leaving the burner top plate outside the frame, and the other is leaving the burner top plate inside. One the next page are our recommended building dimensions for your reference.



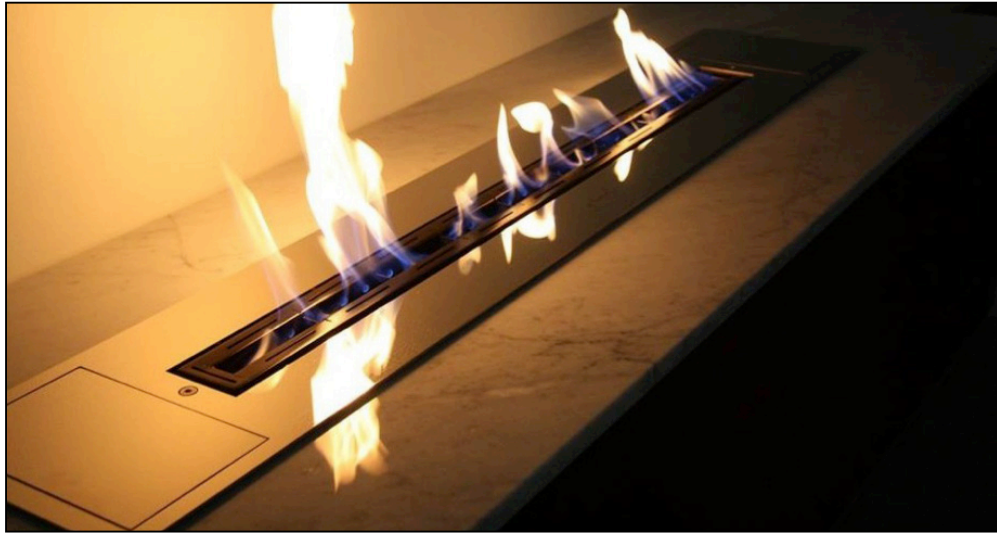
## a. Leaving the top plate outside

Recommended cut-out dimensions:

$$X = \text{Actual J} + 4\text{mm.}$$

$$Y = \text{Actual I} + 4\text{mm.}$$

$$Z = \text{Actual H} + 4\text{mm.}$$



*example: Top plate outside frame*

## b. Leaving the top plate inside

Recommended cut-out dimensions:

$$X = \text{Actual B} + 2\text{mm.}$$

$$Y = \text{Actual A} + 2\text{mm.}$$

$$Z = \text{Actual K} + 2\text{mm.}$$



*example: Top plate inside frame*

# 5. Operating and warnings

## a. Operating procedure

1. Choose a suitable area for building your bio ethanol burner according to our requirements and recommendation of minimum safety distance.
2. Cut a groove to place the bio burner into, following our recommended specific dimensions.
3. Place the bio burner into the groove. Your bio burner is now ready to use.
4. Fill the fuel box up to "Max" indication. We recommend to only use high quality bioethanol with an alcohol percentage of 96% - 97.5%. Never use bioethanol with more than 97.5% alcohol.
5. Use a long lighter such as a BBQ lighter to light the ethanol. To ignite the bioethanol bring the lighter's flame into contact with the bioethanol fuel.
6. When extinguishing the flame, please use the handle and close it quickly.

## b. Warnings

1. Do not use gasoline or any other fuels than bioethanol.
2. Do not combine ethanol with water, incense, fragrance, gel and other liquids or products.
3. Keep children, pets, clothing and furniture away from the unit while it is burning.
4. Be very careful not to spill any fuel on the surface when refuelling. Funnel and measuring cups would be helpful accessories when refilling. If spillage occurs, the spilt bioethanol must be cleaned immediately with a dry absorbent cloth. After cleaning, wash the absorbent cloth thoroughly with water to rinse off any ethanol residue.
5. Never fill or refill the bio burner while it is burning or still hot. Wait at least 15 minutes after the unit has been extinguished before refilling. Don't ever move the fireplace while the unit is burning.
6. Do not smoke while handling the fuel.
7. Never extinguish the flame using water.

