Kittec®-CBG Gas

Users Manual

Contents

About this Users manual

With the help of this **Users manual** we will introduce your new **Kittec®-CBG-STUDIO-LINE** kiln.
Please **read** this Users manual before your first firing to familiarise yourself with the operation of the kiln and the controller. Please take particular note of the **Safety tips** and **Advice** to guarantee successful and safe firing.
Should there still be a problem, we have listed some possible solutions in another section entitled "What if ….?"

Use of the kiln

The electric **Kittec®-CBG-STUDIO-LINE** kilns are built exclusively for the purpose of firing, thermal treatment and/or melting of ceramics, china, enamel, glaze and/or glass. The maximum temperature in the firing chamber of the kiln is 1320°C.
The melting temperature of glazes and the vitrification temperature of the clays used will dictate the firing temperature required, invariably less than 1320 °C.

Safety tips

Do not open without protective clothing when hot! (firing chamber > 50 °C)

Hot surface

Save guards

The following save guards **need to be observed** for trouble-free and safe work with the kiln. Non-compliance could result in health hazards.

- For safety reasons the kiln should only be installed with sufficient distance to inflammable materials.
- Firing in closed rooms is only possible when the waste air of the kiln is lead to a chimney. Please contact your chimney sweep for instructions.
- Please observe the installation advice for the kiln in the section entitled Installation and Operation.
- **Caution!** In use the surfaces of the kilns could reach a temperature of more than **75°C**. Do not obstruct the surfaces.
- The kiln may only be used for the purpose stated. Other applications, particularly the storage, production, cooking, warming and/or drying of food and/or other misappropriations are not allowed. In any case do not put flammable materials into the kiln.
- In any case do not put inflammable materials into the kiln.
- Use only authorized raw materials and glazes in your kiln. Ask your supplier for information on the correct use of the materials, safety data sheets and relevant specialist literature about firing temperatures, maximum temperatures and resulting gases and vapour relating to the materials you wish to use.
- The lid of the kiln must not be used as a table, even not if the kiln is not in use (the mechanical lid should not be put under any pressure and in use the heat given off could present a hazard). Nothing flammable should be left on or close to the kiln.
- The kiln must not be opened during use or until the firing chamber reaches a temperature of less than 50 °C. The escaping hot air is a fire and health hazard. This is strongly recommended to prevent unauthorised opening of the kiln, perhaps by young children.
- The used burner construction must be checked by a service engineer before the first use of the kiln, after maintenance and repairs and at least every 4 years.

Installation and getting started

Storage and transport:

The kiln should be positioned in a dry room with humidity of less than 80 % to avoid the insulation bricks absorbing moisture. The kiln should be moved in an upright position with a fork-lift truck or suitable lifting equipment. Lifting equipment must not be fixed onto the body, only onto the frame of the kiln.

Installation:

The most important requirements are:

- The floor should be of stone, concrete or a material of similar strength and heat resistance.
- The floor should be smooth and even. The authorized area loading must not be exceeded.
- Floors of wood, carpet, plastic or other flammable materials which deform and/or inflame with temperatures < 75°C are not authorized.
- Objects in immediate near must not be of inflammable materials like wood, carpet or other materials which deform at temperatures lower than 250°C. Fire-proof materials must have a low heat conductivity, that materials behind them cannot inflame. Suitable are e.g. insulating plates made of Calcium Silicate, which are available in specialized trade.

The first firing (test firing)

Each new kiln has to be fired empty prior to normal use. This is necessary for two reasons:

- Become acquainted with the heating behaviour of the kiln and burner.
- The insulating fire bricks of the kiln may still contain moisture residue, which has the opportunity to dry during the slow increase in temperature during this first firing.

The first firing is carried out empty of ware but including kiln furniture.

Our tip:
Load the kiln furniture supplied with the kiln into the kiln for the first firing

To open the kiln release the lock and lift up the lid until it comes to rest. Close the lid with the lock on the body.

Install the burner corresponding the producers instructions. Please take care that the top of the burner is approx. two to three centimetres under the burner whole of the kiln. Only than enough Oxygen can be pulled into the firing chamber.

The firing process

General

Open the kiln lid and distribute the ware evenly in the kiln. Advice for the stacking of ware will be found in the following sections. Fill the whole firing chamber to avoid energy wastage. Then close the lid with the lock on the body. For starting the burner please see the users manual of the producer. If you have a thermocouple and a temperature gauge, please also see the users manual of the producer.

Biscuit firing

Biscuit firing is the first firing of ceramics, that means the firing of the dry, unglazed piece. Biscuit firing is in a fast heating gas kiln nearly not possible and should be done in a electric kiln.

Glaze firing

In glaze firing the even temperature distribution is of vital importance for the fired appearance of the ware, because glazes are very sensitive to temperature differences. Therefore distribute the ware evenly in the kiln. Fire similar pieces on one level. The minimum distance between the pieces should be three to five cm, that is also advised for the distance to the wall.
The base of each piece should not be glazed or it should be supported on stilts to protect the surface of the kiln shelf. The shelves can be painted with suitable shelve protecting material to protect against down running glaze.

Reduction glaze firing

Reduction firing in gas heated kilns is generally possible. The bricks used in this kiln are suitable for that. You control the reduction with the opening in the lid, which you can minimize with a brick.

Maintenance and care

To guarantee safe use the gas fittings have to be checked every one to two years by a specialist. Otherwise maintenance of your **Kittec®-CBG-STUDIO-LINE** is restricted to regular cleaning. Sweep the kiln and afterwards clean it with a vacuum cleaner.

Should glaze make contact with the insulation bricks, it should be removed with a suitable tool, e.g. a spatula. With further firings the glaze would damage the brickwork more. After each firing check the firing chamber for damage by accidental glaze spillage or runs. If more than 2 cm of the brick is eroded, the area of brickwork should be repaired.

- First make the damaged spot rectangular
- Tidily shape a new piece insulating brick
- Clean the damaged area with a vacuum cleaner and
- put in the replacement piece with kiln mortar

For these type of repair we can supply a repair kit. Any spare parts and repairs mentioned are available from **Kittec®** or can be carried out by your service engineer.

Advice
Hairline cracks in insulating bricks are a result of high temperatures, are quite normal and will not affect the operating efficiency of your kiln.

Troubleshooting

What if ...

... the firing chamber heats too slow or the kiln does not reach the set temperature?

- The burner has not enough power or is wrong adjusted.
- The distance of the burner top to the burner whole in the kiln is too big or too small.
- The gas bottle is empty or icy.
- The cross-section of the exhaust air whole in the lid is not enough or to much minimized with a brick.

If you are still unable to locate the error despite these tips please get in contact with your service engineer or with our service department.

The **Kittec®** address you can find on the next page and on the warranty certificate.

Technical Data of the CBG-STUDIO LINE Models

KITTEC Gas-Kilns CBG

Data overview

CBG TYPE	Firing chamber Ø [mm]	Interior height [mm]	Firing chamber [mm]	Volume gross [l]	External width [mm]	External depth [mm]	External height [mm]	Temperature max. [°C]	Recommended burner capacity [kW]	Weight approx. [kg]
CBG 90	**450**	**500**	**460**	**90**	**820**	**870**	**760**	**1320**	**20**	**100**
CBG 160	**540**	**590**	**530**	**160**	**880**	**950**	**830**		**40**	**130**
CBG 210	**540**	**590**	**690**	**210**	**880**	**950**	**960**			**150**
CBG 280	**640**	**690**	**690**	**280**	**980**	**1050**	**960**			**180**

Subject to technical changes. Correct at 3.2005

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Warranty certificate for kiln:

Type: _____ Serial number: _____

Company: _____

Area of business: _____

Name: _____

Address: _____

_____

Date of delivery: _____

Dealer: _____

Further details (not necessary for guarantee, but help us to reach you faster if necessary):

phone: +____ ( )_____ / _____ (with dialling code)

Fax: +____ ( )_____ / _____ (with dialling code)

eMail: _____ @ _____

Warranty regulations:

We grant three years guarantee on kiln and controller with proper use. With commercial use six month, excluding heating elements and thermocouple.

Please send this form back for registration!

eMail: service@kittec.de
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