

Instruction Manual

Gas – Top loading Kilns



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1. PREFACE

Congratulations! You have opted for a ROHDE Kiln – a high-quality product for highest requirements.

This top-loading kiln is the result of our profound research in the improvement of gas-fired kilns. It is suitable for firing up to 1320°C and is equipped with a reduction resistant lining.

This instruction manual will make it easy for you to get familiar with your new ROHDE Gas Top-loading Kiln. We have compiled a collection of important information and guidelines in order to make operating your ROHDE kiln as simple and safe as possible.

Please read the instruction manual carefully before you operate your ROHDE Gas Top-loading Kiln for the first time.

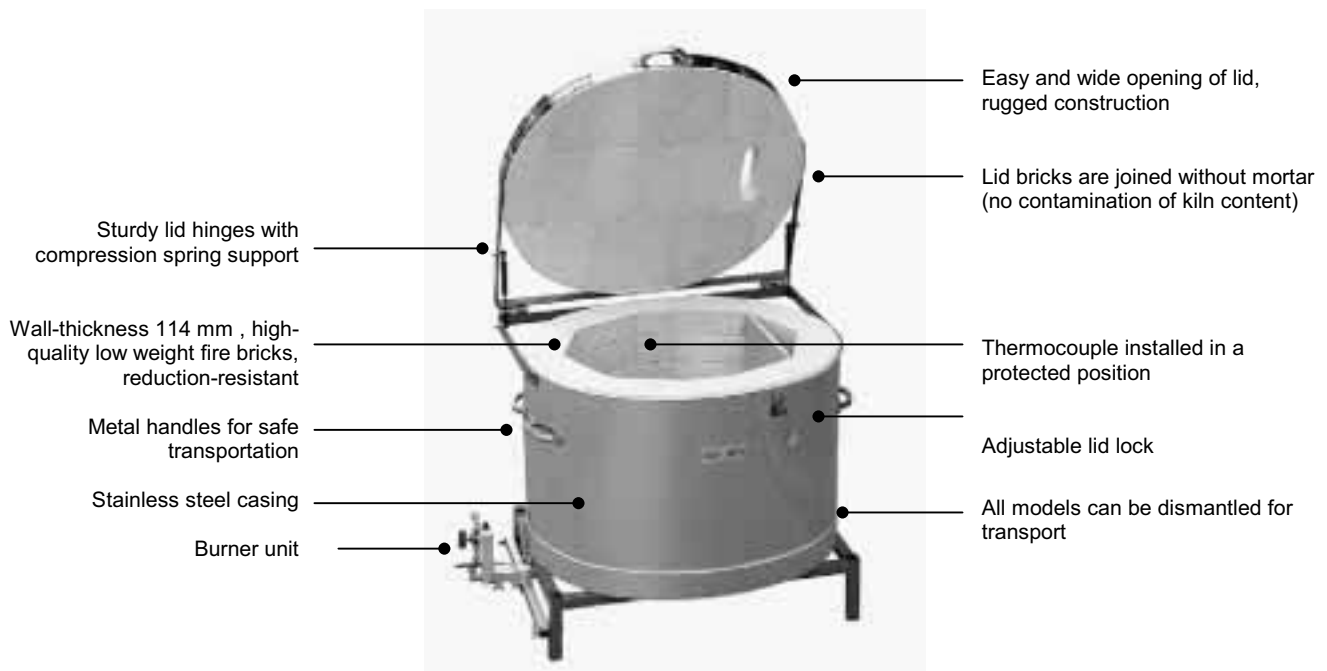
This will help you to become familiar with the features and functions of your Top-loading kiln and the burner unit.

2. PRODUCT FAMILY

Model range Gas Top-loader

Modell	Innenmaße (mm)			Außenmaße (mm)			Brenner Stück	Leistung kW	Platten mm	Gewicht kg
	b	t	h	B	T	H				
TG 80	430	480	460	800	680	790	1	20	Ø 420	120
TG 170	620	620	530	1020	930	860	2	40	Ø 550	150
TG 220	620	620	690	1020	930	1020	2	40	Ø 550	180
TG 270	750	620	690	1070	930	1020	2	40	Spezial	200

3. OVERVIEW



4. IMPORTANT SAFETY INSTRUCTIONS

4.1. General information

Please make sure that you read and understand both the safety instructions and the safety icons, in order to eliminate potential hazards. It is in your own interest to read through the following safety instructions very carefully before you start operating your kiln.

Always keep your instruction manual in a safe place and only use ROHDE spare parts!

4.2. Safety instructions



Caution:
Hot surface, do not open while the kiln is hot.



This product series was granted the GS safety certificate (BGV A8) by the German trade association.

4.3. Safety instructions for operation

A safe operation of a ROHDE kiln will only be possible by adhering to the following safety instructions:

- Repair and maintenance of the burner unit must be carried out by a specialist, which is authorised by the manufacturer. Maintenance of the gas supply must be carried out by a qualified **gas specialist**.
- Do not place inflammable objects in the proximity of the kiln.
- The kiln must be located and operated in an adequately aired room. Please make sure that the exhaust fumes can be released into the open air through an exhaust air system.
- The kiln must be operated in a free-standing position. Heat radiation should not be hindered. Do not place objects on or around the kiln.
- Never open the kiln while it is still in operation or has not cooled down entirely. If high temperatures are released from the kiln, they may cause fire or injuries and lead to premature wear of the kiln.
- If you fire materials which cause hazardous gasses or fumes, it is important that you install an exhaust air system, in order to release these fumes into the open air. Please consult your chimney-sweeper !

- Never fire inflammable materials or food in your kiln.

CAUTION DANGER TO LIFE: The door of the Gas Top-loading Kiln must always be opened entirely during igniting of the burner unit !!!

5. INITIAL OPERATION

5.1. Delivery / unpacking of kiln

ROHDE top loaders are usually delivered on pallet by freight forwarding. Please check the delivery immediately for damages. Should you find any damages on the packing, unpack the pallet together with the driver and check the product for any damages. Write down any damages found on the delivery note and do not forget to have the note countersigned by the driver. Keep a copy of the damage complaint. Notify the forwarding agent immediately about the damage. **We regret that later claims cannot be accepted.**

5.2. Dispose of packing material

Please contribute to a clean environment by disposing of the wood, cardboard and plastic packing material in your nearest recycling centre. For further information on the disposal of packing material please contact your retailer or community council.

5.3. Kiln environment / place of operation

When you choose a suitable place for your kiln, please take note of the following guidelines and prepare the kiln environment accordingly:

- Place the kiln on an even surface.
- The distance to the walls should be 25 cm on each side.
- Floor, insulation of the ceiling, walls, dividing walls, panels, etc. have to be made of material which is not easily flammable.
- Make sure that the environment of the kiln can be aired properly. If you operate your Gas Top-loading Kiln in a closed room a ventilation system has to be installed which has to meet the requirements specified by your chimney-sweeper.
- If you are using gas cylinders you have to make sure that you are not storing or operating more than one 11 kg cylinder of propane gas in a closed room! One 11kg propane gas cylinder is sufficient for the operation of a kiln with one burner unit (e.g. TG 80).
- For kilns with a higher performance you will require a central gas supply. This can be provided by a multi-cylinder unit (2 cylinder connection) or a gas tank. Your propane gas supplier will advise you which option is best for your specific requirements.

5.4. Assembly of Kiln

Please check if the included equipment is complete:

- 3 small Cordierite blocks
- 2 Cordierite chimney panels
- 2 props for chimney panels
- 8 fixing studs for chimney panels
- 1 chimney cover brick



- 1 burner unit including burner guide (for TG 80 only 1 burner)



- hose connection incl. Pressure regulator and manometer
- 2-cylinder connection



- 1 thermocouple
- 1 temperature meter TM 20



5.5. Kiln transport

If you have to transport your kiln, please read the instructions under 7.1.

5.6. Install Chimney panels

You can now take the chimney panels, the fixing studs and the props for the chimney panels and start with mounting the first chimney panel in the following way:

Place the support tubes for the first chimney panel into the right-hand inside of the kiln (picture 2). The smaller chimney panel has to be mounted onto the props fitting the grooves of the props. Now you have to insert the ceramic fixing studs into the prepared drill-hole (picture 3) in order to fix the chimney panel in its position.

After you have installed the smaller chimney panel you can mount the second, larger panel as well. Carefully place the panel on top of the smaller one, so that it fits into the grooves of the first panel. If you have moved the panel into its final position use the fixing studs to fix the panel (picture 4).

CAUTION: Mount the smaller panel first and on top of it the larger one!



Picture 2



Picture 3



Picture 4

5.7. Installation of Thermocouple

At the rear-side of your Gas Top-loading Kiln you will find the flange for connecting the GAL thermocouple, which is included in the equipment. Carefully insert the thermocouple into the flange (picture 5) and fix the thermocouple to the flange with the help of the included screw.



Picture 5

Insert the connection end of the thermocouple (banana-shaped plugs red=positive and white=negative) into the red and white plug at the temperature meter TM 20.

Please make sure that you connect red with red and white with white!

5.8. Install burner unit

You may now take the burner unit, which has already been attached to the burner guide and screw it onto the stand of the Gas Top-loading Kiln (picture 6). Drill-holes are provided at the correct position.



Picture 6



Picture 7

Now the burners have to be adjusted to fit under the burner openings of the kiln. Please make sure that the burners are placed exactly below the openings (picture 7).

Burner head and kiln bottom have to be approximately 2 cm apart (picture 8).



Picture 8

5.9. Connecting the Burner Unit

Propane gas cylinder

After you have installed the burner unit at the kiln you can remove the protection lid (picture 9) from the propane gas cylinder (PLEASE NOTE: left-handed thread!). Now screw the connection piece of the hose onto the connections piece of the propane gas cylinder (picture 10).



Picture 9



Picture 10

Finally you will have to install the quick-release fastener onto the plug connection of the burner unit (picture 11).



Picture 11

5.10. Ignition of Burner Unit

CAUTION: Please remove the protection foil from the entire kiln now (Bottom, Ring and Lid)!!!

If you have connected the burner unit correctly according to the instructions above, you can now ignite the burner unit:

CAUTION DANGER TO LIFE: The door of the Gas Top-loading Kiln must always be opened entirely during igniting of the burner-unit !!!

Open the locked valve of the propane gas cylinder (labelled at the valve head).

Regulate the pressure reducer so that it indicates 0.5 bar gas pressure. Now press the hose breakage protection briefly and the propane gas will reach the burner.

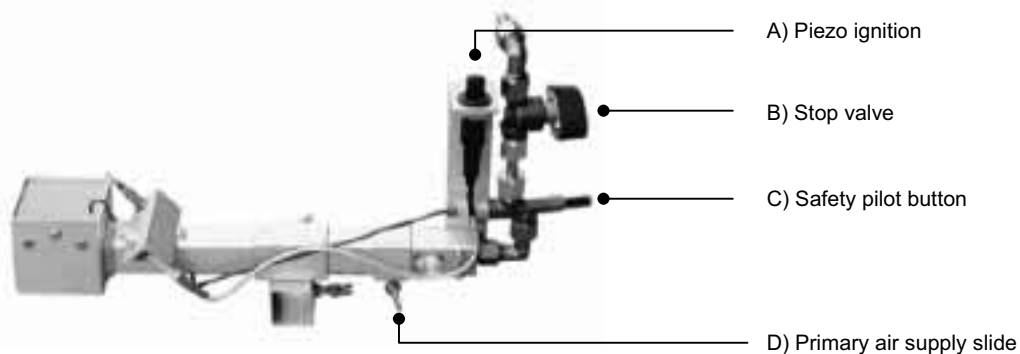
If you ignite the burner unit for the first time, the primary air supply slide (D) should be opened entirely. In order to change its position, please loosen the wing bolt. If you have fixed the bolt in this position during the first ignition you will not have to repeat this procedure during the next firing.

Open the stop valve (B) in the direction of the gas flow. Then press the red safety pilot button (C) and keep it pressed in (picture 12).

Now you can ignite the burner with the Piezo ignition (A). You might have to do this several times until the gas flame has been ignited.



Picture 12



Fine-adjustment of Burner-Flame

After the burner has been ignited entirely the flame can be fine-tuned. For this purpose you have to loosen the wing bolt of the primary air supply slide (D).

Now you can move the slide away from the air intake opening – the flame gets blue, stronger and louder.

Result: There is a high oxygen surplus in the kiln, the burner flame oxidises strongly.

Now try moving the air supply slide towards the air intake opening until the colour of the flame changes to green.

Result: The flame is calm and neutral. In this state reduction can be achieved easily – your burner operates efficiently!

CAUTION: Please fix the primary air supply slide with the wing bolt in the chosen position !!!

5.11. Burning-in Kiln and Furniture

CAUTION: If you have not removed the protection foil from the entire kiln (bottom, ring and lid), please remove it now !!!

Before you start using your kiln for regular service you should run a firing with the empty kiln. The “burning-in” is necessary to eliminate the remaining moisture from the kiln walls.

Please choose the following settings for the process of “burning-in”:

- at 0.2 to 0.3 bar gas pressure
- fire approximately 5 hours

Please make sure that the chimney opening is not covered during this process.

While firing the kiln you can also burn-in the wood stilts and additional shelves (optional accessories). For further information on this please see point 7.3.

As the kiln will give off moisture during the first firing it is essential to readjust the tensioning belts at the lid and the main ring. For further information please see point 8.0.

6. GENERAL INFORMATION FOR USE

6.1. Instructions for correct firing

- The kiln has to be operated in a free-standing position. The release of heat should not be blocked. Do not place objects on top of or around the kiln.
- Never open the kiln during operation or before it has entirely cooled down. Heat released from the kiln might cause damage and injuries and leads to premature wear of the kiln.
- Never place flammable materials or food in the kiln.

7. FURTHER FEATURES

7.1. Transport and delivery

In order to move the kiln to its final place of operation it might be necessary to dismantle the kiln

Transport will be facilitated by disassembling the lid, rings and bottom. Only use the designated handles or the stand for transportation.

7.1.1. Remove the lid

Open the kiln lid. Use a screwdriver to push the metal sleeve at the head of the spring up (picture 13) until you can pull away the gas operated compression spring from the ball-shaped head (picture 14). Let another person hold the lid to prevent it from falling onto the main ring.



Picture 13



Picture 14



Picture 15

Now loosen the two hexagon socket screws (picture 15) with a number 8 allen key and remove both screws. You can lift the lid now. Lay it flat on an even and smooth surface. Do not lean it vertically on the rim!

7.1.2. Remove the main ring

For all Gas Top-loading Kilns the main ring can be detached from the bottom. For transportation the catch is protected with a pin. In order to remove the main ring the protection pin has to be removed. Bend the protection pin (picture 16) into a straight horizontal position and pull it out of the catch.



Picture 16

7.1.3. Remove supplementary ring

If your kiln is equipped with a supplementary ring you have to remove it for transportation. Lay down main and supplementary ring on an even and flat surface, unless the fire bricks might be damaged! Do not lean the rings vertically on the rims!

CAUTION: The chimney panels must not be installed when you are disassembling the gas top-loader – danger of breaking !!!

7.2. Examples for setting

Place the enclosed 3 small Cordierite blocks (picture 17) on the bottom of the kiln, then place a first shelf (optional equipment) on top (picture 18). Please note that all shelves and posts have to be burnt-in (see 5.9)!

We recommend to support each shelf in three points (picture 19). You should always aim to place one post on top of the other, unless the setting shelves might suffer from deformation or cracking.



Picture 17



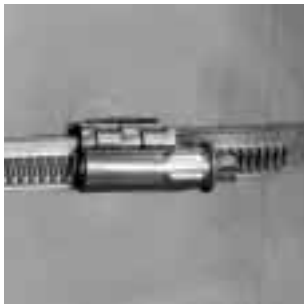
Picture 18



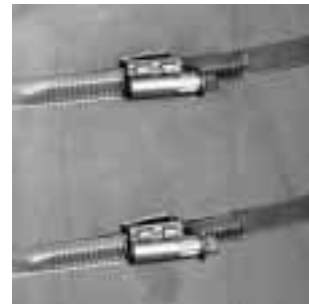
Picture 19

8. MAINTENANCE AND CLEANING

As during the first operations the remaining moisture will be withdrawn from the fire bricks, the circumference of the kiln might change slightly. It is therefore essential to readjust the tensioning belts of the stainless steel casing of the lid (picture 20) and main ring (picture 21) after the first firings.



Picture 20



Picture 21

9. TIPS FOR TROUBLE SHOOTING

The burner unit cannot be switched on.

- Check the gas level of the propane gas cylinder.
- Check if the stop-valve of the gas cylinder is open.
- Check if the hose breakage protection (red button) has been pressed.
- Check the position of the stop valve of the burner (in direction of gas-flow = open).
- Check if you see the spark-plug fire.

Each ROHDE kiln is checked for functionality before it leaves our factory!

10. GUARANTEE REGULATIONS

We guarantee the faultless workmanship and function of the delivered kiln and grant a 36-month guarantee from date of invoice.

The following instances are excluded from the guarantee:

- Damages, which have been caused by the customer.
- The hose material of the 2-bottle connection and the hose connection experience a natural ageing process or wearout, especially when it is used outside. It has to be checked and if necessary replaced by a gas technician in regular intervals.
- Damages, which have been caused by kiln firing, e.g. due to, exceeded temperature limits for materials.
- Damage caused by inappropriate transport(s)
- Damages due to chemical reactions during firing for which the kiln is not designed (e.g. salt glazed ceramics)
- The manufacturer is not liable for any damage caused by inappropriate operation and resulting damages.

Important: Please fill in the GUARANTEE CARD and send it back immediately! Please note: If you do not send back the Guarantee Card, we will not be able support you quickly and free of charge in an event of damage.

Caution: The firebricks of the lining are exposed to great temperature fluctuations. This can cause crazing in the firebrick lining. This process is normal and does not affect the functions of the kiln. It therefore cannot be a reason for reclamation.

What to do in the event of guarantee/damage:

Please notify your retailer - before any costs arise. Your retailer will then talk to us, the manufacturer, how to proceed.

In the case of a reclamation, please state the **kiln type**, **product number** and the **date of purchase** or the **year of construction** (see **type plate** on the kiln side).



11. INDUSTRIAL PROPERTY RIGHTS / TRADE NAMES / DISCLAIMER

The content of the instruction manual are purely informative. It may be changed without prior notice and may not be seen as a liability of Helmut Rohde GmbH. We do not guarantee or take over responsibility for the correctness or precision of the contents in this instruction manual.

We mention names, trade names, product identifications etc. without special identification, as they are commonly known. Those names and identifications, however, may be the property of companies or institutes.

12. SERVICE CONTACT DETAILS

Should you have any questions regarding your kiln, spare parts or additional equipment please contact your retailer.

We hope you will enjoy working with your new ROHDE kiln and wish you
much success and excellent firing results at all times!
Your ROHDE team

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