

Instruction Manual

Gas-Fired Front-Loading Kilns



TABLE OF CONTENTS	PAGE
1. Preface.....	3
2. Product family.....	4
3. Overview.....	4
4. Important safety instructions.....	5
4.1. General instructions.....	5
4.2. Safety instructions.....	5
4.3. Safety instructions for operation.....	5
5. Initial operation.....	6
5.1. Delivery / removal of packing material.....	6
5.2. Disposal of packing material.....	6
5.3. Operation environment / place of operation.....	6
5.4. Transport of kiln.....	7
5.5. Kiln assembly.....	7
5.6. Exhaust hood.....	8
5.7. Exhaust air slide.....	8
5.8. Install Thermocouple.....	9
5.9. Install burner unit.....	10
5.10. Connect burner unit.....	10
5.11. Ignite burner unit.....	11
5.12. Fine adjustment of burner-flame.....	12
5.13. Burn-in kiln / burn-in furniture.....	12
6. General instructions for operation.....	14
6.1. Instructions for correct firing.....	14
7. Maintenance / cleaning.....	14
8. Tips for trouble-shooting.....	14
9. Guarantee regulations.....	15
10. Industrial property rights / trade names / disclaimer.....	16
11. Service contacts.....	16

1. PREFACE

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

This front-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 Front-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 Front-loading Kiln for the first time.

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

2. PRODUCT FAMILY

Modell	Innenmaße (mm)			Außenmaße (mm)			Brenner Stück	Leistung kW	Platten mm	Gewicht kg
	b	t	h	B	T	H				
KG 250 A	540	630	760	1040	970	1590	2	40	600x500	540
KG 500 A	600	850	980	1100	1280	1670	4	60	600x400(2)	880
KG 750 A	820	820	1140	1320	1240	1790	4	60	400x400(4)	1040
KG 1000 A	820	1020	1210	1320	1450	1870	4	80	480x400(4)	1200

3. OVERVIEW



4. IMPORTANT SAFETY INSTRUCTIONS

4.1. General information

Please make sure that you understand both the safety instructions and the safety icons, in order to eliminate potential hazards. It is in your own best 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 use only 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.
- 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-fired Front-loading Kiln must always be kept open entirely during the ignition 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 Front-loading Kiln in a closed room a ventilation system has to be installed which has to meet the requirements specified by your chimneysweeper.
- 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!

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. Kiln transport

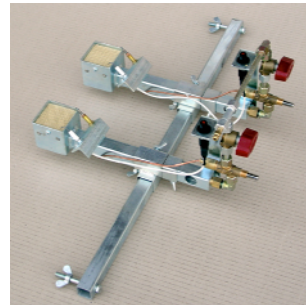
If you have to transport your kiln, please take note of the following instructions:

- **CAUTION: The burner unit has to be detached from the kiln for transport!**
- The exhaust pipe rods must be prevented from sliding and breaking by means of Styrofoam.
- Carefully insert the fork of the forklift under the door of the kiln in the direction of the rear wall.
- Now you can lift the fork and carefully move the kiln to its final location of operation.

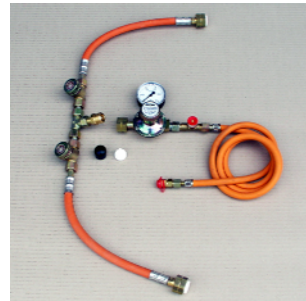
5.5. Assembly of Kiln

Please check if the included equipment is complete:

- 1 double burner-unit including burner guide (for KG 250)
- 2 double burner-units including burner guide (for KG 500 to KG 1000) and supply line



- Hose connection including pressure controller and manometer
- 2 cylinder connection



- 1 thermocouple
- 1 temperature meter TM 20



5.6. Exhaust hood

The exhaust hood for our ROHDE Gas Front-loading Kilns is already pre-installed at delivery. The way in which the rods are installed depends on the layout of your shop floor. Please consult your ventilation engineer or chimneysweeper.

An additional exhaust hood above the exhaust pipes is not necessary, as the gas-fired kiln is equipped with a closed exhaust system. Many chimneysweepers are not aware of this fact.

5.7. Exhaust pipe slide

All ROHDE Gas Front-loading Kilns are equipped with an exhaust pipe slide (picture 4) at the ceiling of the kiln. If the slide is pushed into the kiln entirely (picture 4), the exhaust opening is closed. If the slide is pulled out entirely, the exhaust pipe opening is open (picture 5)



picture 4



picture 5

5.8. Installation of Thermocouple

At the rear-side of your Gas Front-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 6) and fix the thermocouple to the flange with the help of the included screw.



picture 6

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!

5.9. Install burner unit

Now you can take the burner unit, which has already been attached to the burner guide and screw it onto the stand of the Gas Front-loading Kiln (picture 7). Screw holes are provided at the correct position.



picture 7



picture 8

If your kiln is equipped with a second burner unit, you have to follow the same procedure. Please make sure that both burner guides are connected to the supply line (rear-side of the gas-fired kiln). The supply line has to be connected to a gas tank or a multi-cylinder unit.

Now the burner units have to be adjusted to fit under the burner openings in the kiln. Please make sure that the burners are placed exactly below the openings (picture 8).

Burner head and kiln bottom have to be approximately 2 cm apart (picture 9).



picture 9

5.10. Connecting the Burner Unit

After you have installed the burner unit at the kiln you can remove the protection lid (picture 10) 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 11).



picture 10



picture 11

Finally you will have to install the quick-release fastener onto the plug connection of the burner unit (picture 12).



picture 12

5.11. Ignition of Burner Unit

CAUTION: Please remove the protection foil from the kiln now!

CAUTION: Please remove the Styrofoam pallets which are fixed into your kiln to protect the exhaust pipes now!

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

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

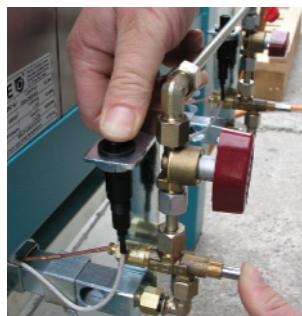
Open the locked valve of the propane gas cylinder (labelled at the valve head).

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.

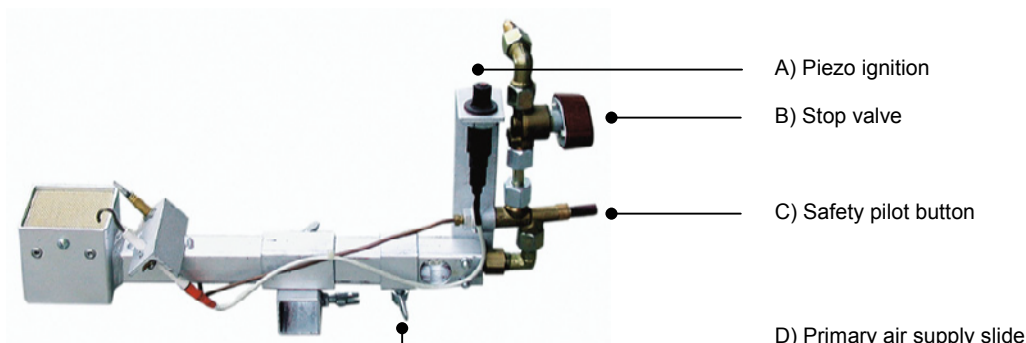
If you ignite the burner unit for the first time, the primary air supply slide (D) should be opened entirely. In order to change its position, please loosen the wing bolt. If you have fixed the bolt in this position during the first ignition you will not have to repeat this procedure during the next 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 13).

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 13



5.12 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 oxidizes 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 !

5.13. Burning-in Kiln and Furniture

CAUTION: Please remove the protection foil from the entire kiln first !

CAUTION: Please remove the Styrofoam pallets which are fixed into your kiln to protect the exhaust pipes 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.

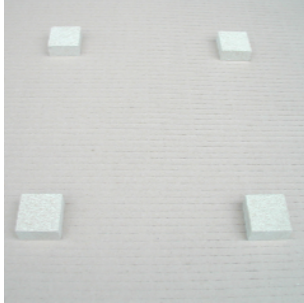
Please choose the following settings for the process of “burning-in”:

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

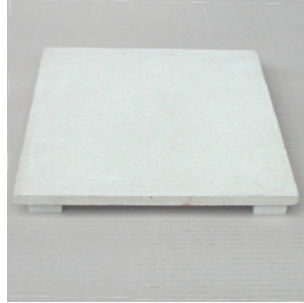
While firing the kiln you can also burn-in the wood stilts and additional shelves (optional accessories).

Please place the included cordierite blocks (picture 14) onto the bottom of the kiln, then place the first shelf (optional accessory) on top of it as shown in picture 15. Please make sure that the distance to the side and rear walls of the kiln are the same on all sides. The burner openings should not be blocked at any rate.

We recommend to place the shelves onto four cordierite blocks. The blocks on the different levels should be arranged in such a way that one block is on top of the other (picture 16). Otherwise the shelves may get bent or develop cracks.



picture 14



picture 15



picture 16

6. GENERAL ONFORMATION FOR USE

6.1 6.1. Instructions for correct firing

- The kiln has to be operated in a freestanding 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. MAINTENANCE AND CLEANING

Please take care that no clays or glazing make contact with the heating elements. This would result in the failure of the elements during the next firing. Should nevertheless the heating elements be stained by any substance please clean them immediately, as burned-in glazing etc. will damage the heating elements and bricks. In the case of substantial damage please contact us, or your retailer.

Please clean your gas-fired kiln regularly with a broom and a vacuum cleaner in order to remove clay and stone-dust. This will prolong the service-life of your kiln.

8. 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 if you see the spark-plug fire.

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

9. 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 heavy 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).



A red rectangular type plate with white text and fields. At the top is the 'ROHDE' logo. Below it are several rows of labels and input fields: 'PRODUKT-NR.' with a field containing '100000', 'TYP' with a field containing '10-2000', 'GASART' with a field containing 'BIOGAS', 'GASDRUCK' with 'max 1.5 bar', 'LEISTUNG' with 'max 4.0 kW', and 'BAUJAHR' with a field containing '2-2005'. At the bottom right is a 'CE' mark. At the very bottom, in small text, it says 'HELMUT ROHDE GmbH D-51134 PRUITING'.

10. 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.

11. 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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