

How to fit ROHDE heating elements

Please read this instruction manual carefully before fitting your new heating elements. Prior to firing your kiln for the first time with the new elements, please be aware of the following:

For safety reasons, disconnect the power before doing any maintenance works. Have an electrician or experienced person do the job!

Please check the description on your delivery note, order and label on the heating elements' box and see if they are identical.

Removing the old elements

Please disconnect the power before handling parts which are connected to the electric circuit (heating elements, wires, etc.) and have them checked by an electrician.

1. Open the connection box on the kiln's side.
2. Release the connecting clamps of the elements you want to change.
3. Remove the fastening pins inside the kiln.
4. Cut the old heating element into little parts of 20 cm with a side cutter. If the element is pulled out as a whole, the firebricks could be damaged.
5. Remove the element parts.

Cleaning the kiln

Remove all the residues from glazes and firings carefully. You can even out deeper holes by filling them with high-temperature fibre material and glue.

Please clean your kiln with a vacuum cleaner or hand brush before mounting new heating elements, in particular the grooves (where the elements are recessed) inside the firebricks. Residues from glazes and/or contamination can burn out the new elements instantly!

Please check the grooves at all times and clean them with a vacuum cleaner at regular intervals increasing their durability.

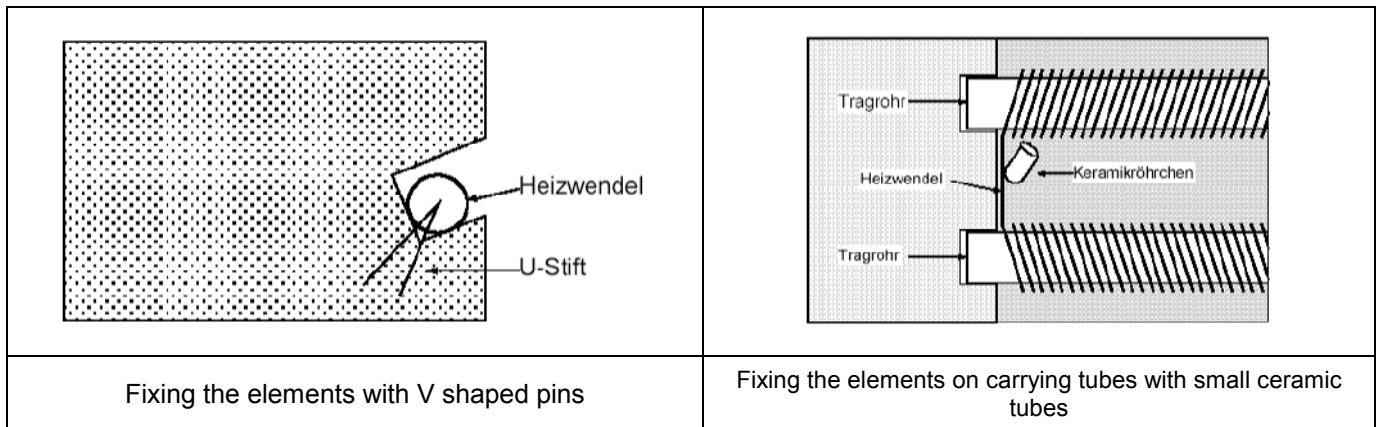
Elements must never be in touch with glazes or metallic substances. Elements are excluded of warranty claims.

Mounting the new elements

1. Lead the one end of the element through the kiln wall into the connection box.
2. Position the element inside the firebrick grooves. With heating elements on carrying tubes: thread the elements one after another onto the tubes and fix them again.
3. You can now lead the second end through the wall into the connection box.
4. If the element is too short, please stretch it a little. Heating elements which have not been fired can be stretched and bent without breaking them.
5. Push the fastening pins into the holes or next to the holes.

Please use only the new fastening V shaped pins you have been sent together with the elements. They are made from the same material. Other material such as wires, nails etc. damage the elements.

When mounting the elements on carrying tubes, fix them again on the tubes with the small ceramic tube. This avoids slipping away of the elements.



Connecting the new heating elements

You can now fix your new heating elements as before with the new connecting clamps – tightly! If you are in doubt, please take a look at the wiring diagram in your kiln instruction manual. Loose connections cause transfer resistance and heat which leads to damage and malfunction of the elements. Please have all electric parts checked by an electrician.

Burning-in the new elements

Burning-in the new elements (empty kiln!) is essential for a longer service life as it forms a protective oxide layer around the heating elements.

Settings for burning-in (open the air supply and exhaust air flaps)

Heating up at approx. 100 °C/h

Final temperature: 1050°C

Dwell time approx.: 90 minutes

Caution: Heating elements which have already been fired are very sensitive to breaking (no claims for warranty). Avoid adjusting them subsequently.

You can now use your kiln.

Good to know:

Further influences to the service life of your heating elements:

- Temperature: heating elements used up to 1100°C last longer than elements used up to 1300°C.
- Kiln atmosphere: e.g. aggressive glazes or clays. In particular colours which contain solvents and / or sulphuric and fluoric clays or glazes can damage the elements. It is therefore necessary to ventilate the kiln chamber sufficiently.

By the way: Heating elements are subject to wear and tear. Their resistance (Ohm) increases with every firing and results in a time delay in the firing curve, in particular in higher temperature ranges. Your kiln will be able to keep to the curve you have programmed due to sufficient power supply. It is useful though to keep a firing protocol on a regular basis, as it makes evident the slightest deviations and wear. We recommend to change the complete set of elements when you notice an advanced wear of your elements. Changing only one element could lead to temperature deviations inside the kiln.

Your team ROHDE