ELS 480/13

ROHDE Chamber Furnace

ROHDE

Product data sheet



Chamber Furnace **ELS 480/13**

Volume	**480 litres**
Int. dimensions (w x d x h)	**640 x 770 x 995 mm**
Power	**32 kW**

Technical data

Overview

Product group	**Kiln**
Design	**Chamber Furnace**
Type	**ELS series**

Energy

Energy type	**Electrical**
Power	**32 kW**
Supply	**47 A**
Voltage	**3/N/PE 400V AC**
Connection	**CEE 63 A**

Dimensions

Volume	**480 litres**
Int. dimensions (w x d x h)	**640 x 770 x 995 mm**
Ext. dimensions (W x D x H)	**1060 x 1420 x 1970 mm**
Weight	**800 kg**

Equipment

Insulation	**3-layer**
Heating	**5-side**
Heating elements	**Support rods**
Control	**TC 504**

Besondere Merkmale

Torsion-resistant welded steel housing

The housing consists of a torsion-resistant welded construction. Each furnace is manufactured by hand and leaves the factory after undergoing extensive quality controls.

Corrosion protection due to stainless steel in-frame ventilation

The fully in-frame ventilated steel construction contributes to low external temperatures and combined with stainless steel components provides effective protection against corrosion.

Durable textured paint finish

The high-quality light-grey RAL 7035 textured coating protects the furnace body and steel construction.

Robust swing door allows for safe opening

The convenient operation of the swing door allows easy opening of the furnace. The solid door handle ensures smooth operating procedures even when opening the hot furnace while the process is running.

Flexible door sealing allows for thorough door closing

A flexible insulating cord ensures a seal between the door and the furnace opening. Minor unevenness can be corrected and the door can be closed flush with the furnace.

Lockable door catch

The robust door catch guarantees safe closing and locking of the door.

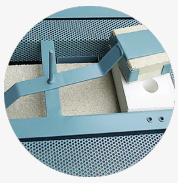
Stainless steel door frame protects against the effects of heat

The door frame is reinforced with stainless steel sheets and protects the construction against the effects of heat.



Air supply handle

The manual air supply handle ensures the best possible ventilation of the furnace interior.



Exhaust air flap handle

The manual exhaust air flap handle is available for the controlled removal of gases and hot exhaust air.

ELS Ergo Load System

The ELS Ergo Load System describes frontloaders with a pull-out drawer floor. The furnace floor can be pulled out like a drawer allowing ergonomic loading on three sides that is easy on the back. Two dampers allow the car to slow down smoothly before reaching the stop position. The additional automatic braking function locks the furnace floor safely at any required position.

Flexible and adjustable truck sealing

The truck is fitted with a conical insulating cord providing optimum sealing of the furnace floor and preventing incoming draughts.

Efficient 3-layer insulation structure

A sophisticated 3-layer insulation structure allows for required temperatures to be achieved using less energy. High energy efficiency can be achieved even in continuous use.

First-class useful volume

All insulating materials are processed precisely and carefully. Lightweight firebricks in the firing chamber are characterised by a high insulation value and good thermal shock resistance.

Covered heating elements on the floor

A high-quality SiC plate protects heating elements mounted on the floor. The SiC plate guarantees good heat transfer and at the same time protects the heating elements from damage.



Unique system prevents particles falling onto the products

ROHDE uses a unique concept of mortar-free lightweight firebricks combined with R-SiC ceiling supports preventing cracks and particles falling onto the products.

Easy-to-maintain switchgear mounted in a Rittal switch cabinet

The switchgear is mounted in a Rittal switch cabinet and can be easily maintained and accessed.



Integrated safety due to door contact switch

A door contact switch automatically isolates the heating elements from the power supply when the kiln opens. The integrated overtemperature protection prevents damage to electrical components.

Low-wear solid-state relays for control

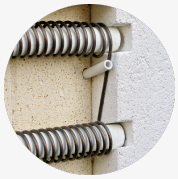
The furnace is controlled by low-wear, silent solid-state relays with external cooling elements.

5-side heating allows for good heat distribution

Heating from 5 sides (side walls, back wall, door and floor) results in very good heat distribution throughout the firing chamber.

Durable heating elements made of “Kanthal A1”

We are committed to minimal surface load and precise manufacture when dimensioning “Kanthal A1” heating elements, so a long service life is guaranteed.

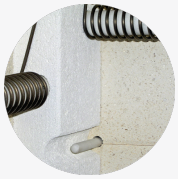


Heating elements securely mounted on support rods

Heating elements are mounted in protected position on Sillimantin support rods and achieve ideal heat radiation and facilitate easy replacement of heating elements.

Heating elements can be easily accessed and serviced

An easy-to-access detachable cover for heating element connections allows the effortless replacement of heating elements.



Precise temperature measurement with the “Type S” thermocouple

The installed PtRhPt thermocouple (type S) is protected against damage and guarantees exact temperature measurement at all times.

63 A

The “CEE 63 A” connector allows for easy connection

The standardised CEE 63 A connector allows for easy connection and quick and safe start-up.

Components from well-known manufacturers contribute to long service life

We only obtain our electric components from well-known manufacturers (e.g. SIEMENS, MOELLER, WEIDMÜLLER, RITTAL).

Furnace construction in accordance with DIN EN 746-1

The unit is constructed and manufactured in accordance with DIN EN 746-1 Industrial Thermoprocessing Equipment.

Switchgear design in accordance with DIN EN 60519

The switchgear is designed in accordance with DIN EN 60519 Safety in Installations for Electroheating.

2-year warranty despite intense use

We deliberately refuse to reduce the warranty period despite commercial furnaces being used intensely except parts that are subject to wear.