FURNACES FOR CERAMICS AND GLASS

LAC | ART OF HEATING

LAC

ART OF
HEATING

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COMPANY PROFILE

LAC, s.r.o. has been a successful manufacturer and seller of industrial furnaces, dryers and refractory castable shapes for three decades. It operates both on domestic and foreign markets. Since its foundation in 1992, the company has developed into a leading global manufacturer and has delivered as many as 20,000 furnaces and dryers. The products are used in many technological processes of heat treatment, especially:

- heat treatment of ferrous and non-ferrous metals
- alloy technologies for non-ferrous metals
- heat treatment and chemical- heat treatment metal processing
- low-temperature applications
- laboratory technologies
- production of industrial and hobby ceramics

The LAC manufacturing program includes the manufacture of a complete standard range of furnace and dryer lines, and also accommodates the individual requirements of the customer through the design and manufacture of customized furnaces tailor-made to meet customer specifications. The LAC development and design office works in tandem with a team of service technicians to ensure quality service to customers and pave the way for future company growth. Progress in technological development is proven by orders for the automotive, aerospace and defense industries that meet the demanding standards of AMS 2750 E, NADCAP, CQI-9. In 2018, the construction of new LAC complex in Židlochovice worth CZK 220 million was completed. Investments in the form of a new furnace and dryer production hall and office space allow us to streamline the production process and produce even higher quality products for our customers.

A significant part of the LAC business is the manufacture of refractory castable shapes, the bulk of which are used in the manufacture of industrial furnaces. Refractory castable shapes are also used by metallurgy companies and manufacturers of boilers for burning wood, pellets, and biomass. The investments in the extension of the premises for production of refractory castable shapes at Hrušovany nad Jevišovkou have reached a total of CZK 67 million.

The company also supplies heating elements, refractory and insulation materials, regulating elements, and reconstruction of furnaces, heating systems and switchboards to its customers.

6 custom projects per month

Almost 20,000 furnaces manufactured
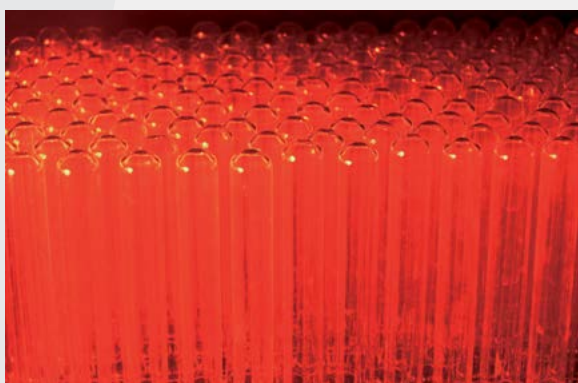
We deliver to 35 countries worldwide

CONTENT

FURNACES FOR CERAMICS AND GLASS

In ceramic and glass segment LAC company produces more than 200 furnaces per year.

We know that you appreciate simple operation, easy service and long service life for ceramic furnaces. The strengths we place the most emphasis on. And we are glad that our equipment for firing ceramics and fusing or melting glass make art enthusiasts, children in schools or even artists in art workshops happy. They also work reliably in large plants and operations.

WWW.LAC.CZ

ART OF HEATING

M top loading kiln

This top loading kiln has been a proven choice for years, for both „hobby" ceramics and professional ceramicists who require top loading. Its circular shape and design ensure an even temperature distribution in the working chamber, improving the quality of firing and extending the life of the kiln. The use of top-quality insulation materials reduces electricity consumption. The lid with gas struts and good workshop quality contribute to safe and reliable operation. The kiln shell is made from grounded stainless steel sheet and the temperature contoller can be selected from the available options.

Well-designed construction that significantly affects the price

Top-quality insulation materials reduces electricity consumption

Even temperature rise and distribution throughout the kiln volume

M 60

HTH8

Bentrup

Selectable temperature controller with high accuracy (list on p. 15)

STANDARD KILN EQUIPMENT:

- Holder for fixing the temperature controller and selected type of programmable temperature controller (HTH8 or Bentrup)
- Resistance heating (coils) inserted into horizontal grooves in the side walls
- Stable suspension of the kiln lid with gas strut and lid limit switch for safe opening of the kiln
- "S" type thermocouple
- Contactless switching relay (smooth and noise-free operation, minimal interference with surrounding equipment)
- Ventilation chimney preventing condensation of vapours during firing
- Manually operated flap for controlling the air supply in the bottom of the kiln

Simple operation and installation

Selected furnaces immediately in stock

Shipment from 3 weeks

36 Warranty 36 months

Instant technical support

RECOMMENDED ACCESSORIES AT AN ADDITIONAL COST:

- Double rotating wheels with brake for easy handling of the kiln
- Interlayer plates are used to protect the kiln bottom or build floors for firing on multiple floors (cordierite-mullite material)
- Ceramic interlayer spacing columns to build floors
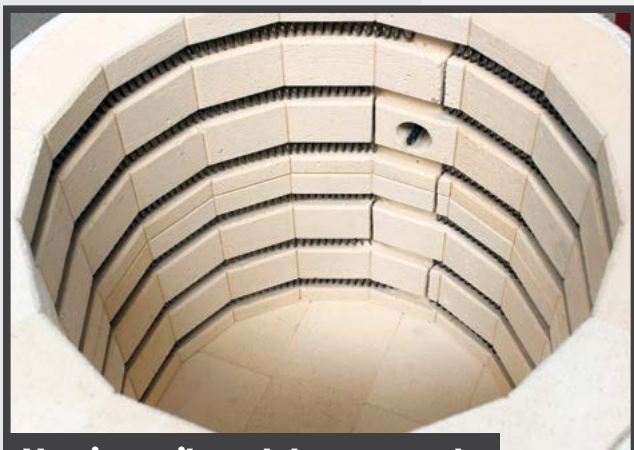
Heating coils and thermocouple

Lid with a gas struts

Sheet and electrospace

Bentrup controller

HTH8 controller

M top loading kilns are manufactured in a comprehensive series of 7 sizes (38-226 l) with a supply voltage of 230 V and 400 V. Electric resistance heating is provided by heating coils inserted into horizontal grooves in the bricks of the kiln shell.

We make these furnaces also in the MGF 30 version as lid heated fusing furnaces for maximum temperature of 900 °C. This furnace is suitable especially for all „hobby" production of bended and sintered glass, also for fusing glass treatment.

Type	Tmax**	Recommended operating temperature range	Volume	External dimensions (D×d×h)*	Internal dimensions (D×h)	Heating power	Weight	Power socket	Protection	Voltage
	°C	°C	l	mm	mm	kW	kg	typ	A	V
M 30/13	1320	700-1250	38	560×724×620	374×345	3,5	60	Schuko	16/1	230
M 45/13	1320	700-1250	46	598×764×620	412×345	4,5	68	CEE16A	16/3	400
M 45/13 (230V)	1320	700-1250	46	598×764×620	412×345	3,5	68	Schuko	16/1	230
M 60/13	1320	700-1250	61	598×764×730	412×458	5,5	71	CEE16A	16/3	400
M 60/13 (230V)	1320	700-1250	61	598×764×730	412×458	3,5	71	Schuko	16/1	230
M 100/13	1320	700-1250	108	729×901×730	550×458	7,5	100	CEE16A	16/3	400
M 150/13	1320	700-1250	150	824×998×730	647×458	8,5	120	CEE16A	16/3	400
M 160/13	1320	700-1250	164	729×901×961	550×690	9,5	122	CEE16A	16/3	400
M 220/13	1320	700-1250	226	824×998×961	647×690	11	145	CEE16A	16/3	400

* D – diameter of the cylindrical body of the kiln, d – depth including electrical space, h – height of closed kiln including legs without wheels.
** Tmax is the maximum temperature which can be attained by the kiln, but is not suitable for long-term operation.

KE front loading kiln

A more economical version of chamber kiln designed for firing both decorative and industrial ceramics, heat treatment of glass and firing of decorations.
The KE kiln can make your work easier. This kiln's shape and design ensure perfect temperature distribution and the option of quick run-up to the required temperature.
The kiln's shell is made of glossy stainless steel sheet.

Simple construction that significantly affects the price

Top-quality insulation materials (low energy consumption, smooth run-up)

Air-cooled shell made from a glossy stainless steel sheet

KE 250

Perfect temperature distribution thanks to the layout of the heating spirals

STANDARD KILN EQUIPMENT:

- Ht40AL programmable temperature controller with high accuracy (1 programme: 2x run-up, 2x dwell)
- Resistance heating (heating spirals) from three sides (kiln side and floor) or five sides depending on type
- "S" type thermocouple
- Solid state relay (smooth and noise-free operation, minimal interference with surrounding equipment)
- Slide valve for controlling air intake
- Ventilation chimney preventing condensation of vapours during firing
- Limit switch for safe opening of the furnace doors
- Manually-operated door opening to the left

Simple operation and installation

Selected furnaces immediately in stock

Shipment from 6 weeks

24 Warranty 24 months

Instant technical support

RECOMMENDED ACCESSORIES AT AN ADDITIONAL COST:

- HtCeramic controller (20 programmes with 15 steps each)
- KIln stand
- Kiln adapter for drying of charge before its placement in the furnace
- Interlayer plates to protect the kiln bottom or build floors (cordierite-mullite material)
- Ceramic interlayer spacing columns to build floors
- HtMonit EV set (include software + interface)
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 20 °C

After consulting, we offer also other possibilities of modification of your equipment according to your requirements.

KE 250

KE 125 including stand

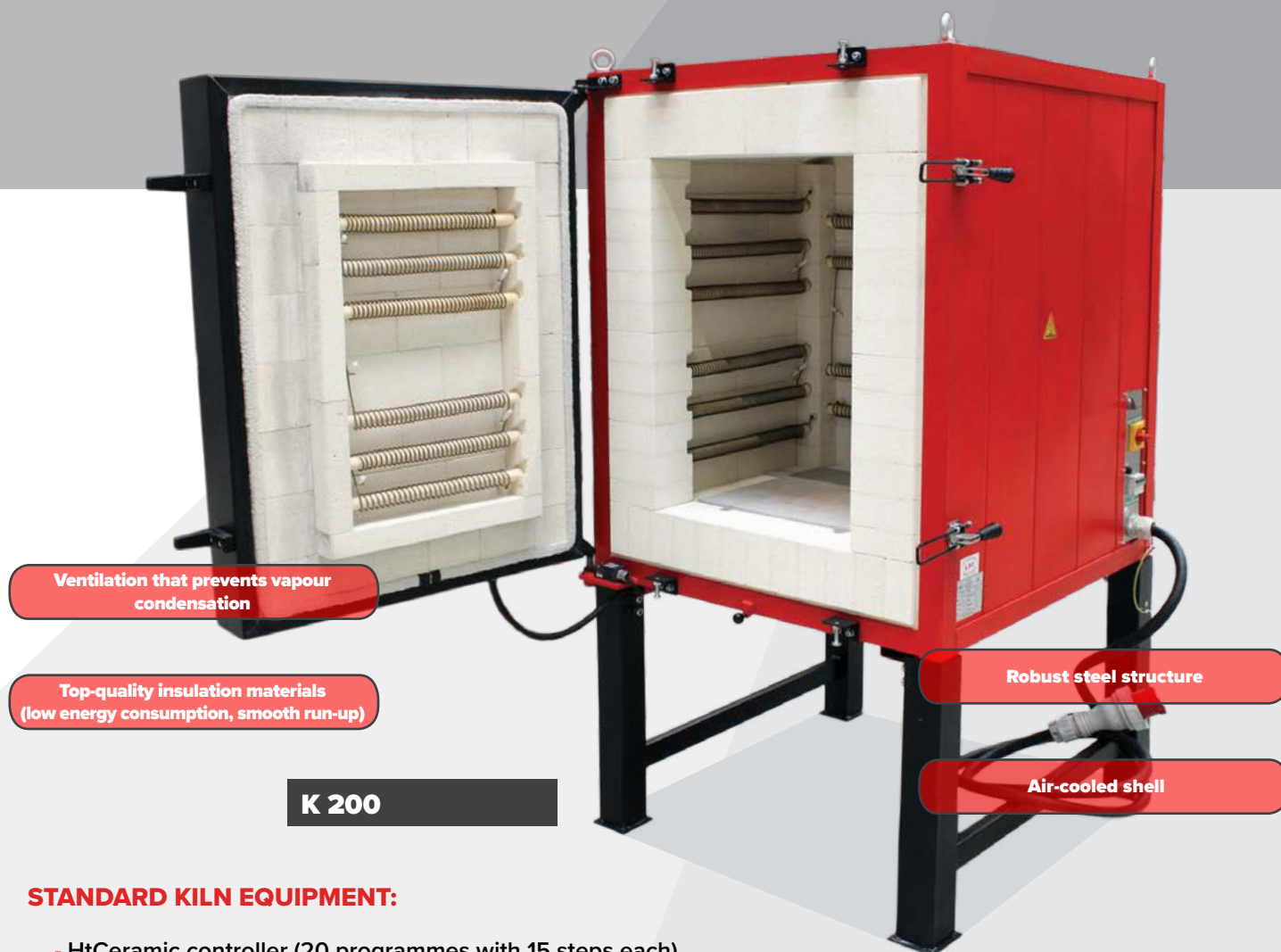| Type	Tmax**	Recommended operating temperature range	Number of heating sides	Volume	External dimensions (w×h×d)*	Internal dimensions (w×h×d)	Heating power	Weight	Voltage	Protection	Max. load capacity of bottom
	°C	°C	pcs	l	mm	mm	kW	kg	V	A	kg
KE 125/12	1280	700-1200	3 or 5	125	910×910×1040	500×500×500	9	180	400	16/3	80
KE 250/12	1280	700-1200	3 or 5	275	1060×1060×1190	650×650×650	14	260	400	25/3	120
KE 500/12	1280	700-1200	3 or 5	504	1110×1220×1450	700×800×900	19	390	400	32/3	300

With regulator and door closing mechanism disassembled. The stand height for all types is is 540 mm.
**Tmax is the maximum temperature which can be attained by the kiln, but is not suitable for long-term operation.*

K front loading kiln

Do you need to burn a larger amount of decorative or industrial ceramics? The K kiln is ideal for use in the ceramics industry. It can burn a large number of pieces, saving you time and money. This kiln's shape and design ensure perfect temperature distribution and the option of quick run-up to the required temperature.

Ventilation that prevents vapour condensation

Top-quality insulation materials (low energy consumption, smooth run-up)

K 200

Robust steel structure

Air-cooled shell

STANDARD KILN EQUIPMENT:

- HtCeramic controller (20 programmes with 15 steps each)
- Resistance heating (heating spirals) from five sides, including the bottom
- "S" type thermocouple
- Solid state relay (smooth and noise-free operation, minimal interference with surrounding equipment)
- Slide valve for controlling air intake at the bottom of the kiln
- Flue for K 50 – K 300, manually controlled ventilation flap for K 500 – K 2000
- Limit switch for safe opening of the kiln doors
- Manually-operated door opening to the left
- SiC plate at bottom of kiln
- Stand for models K 50 through K 300
- Heating spirals made from Kanthal APM and Alsint ceramic tubes (only for temperatures of 1400 °C)

Simple operation and installation

Atypical modifications

Shipment from 6 weeks

24 Warranty 24 months

Instant technical support

RECOMMENDED ACCESSORIES AT AN ADDITIONAL COST:

- Ht205 controller (30 programmes with 15 steps each)
- Automatic ventilation flap (only with the Ht205 controller), manually controlled ventilation flap (for K 50 – K 300)
- HtMonit EV set (include interface + software), RS-485 interface, LAN interface (only with the Ht205 controller)
- Digital temperature recorder
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 20 °C
- Additional custom components such as uncontrolled or controlled forced overpressure cooling, multi zone heating system (K 500 – K 2000), door opening (electrohydraulic)

After consulting, we offer also other possibilities of modification of your equipment according to your requirements.

K 2000

K 700 with door opening (electrohydraulic)

Type	Tmax**	Recommended operating temperature range	Volume	External dimensions* (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Voltage	Protection	Max. load capacity of bottom
	°C	°C	l	mm	mm	kW	kg	V	A	kg
K 50/13	1300	700-1250	50	910×1405×1070	350×350×400	5,5	125	400	16/3	50
K 70/13	1300	700-1250	80	910×1465×1070	350×450×450	7,5	165	400	16/3	50
K 120/13	1340	700-1300	120	1010×1535×1140	450×530×500	10,5	260	400	16/3	80
K 150/13	1340	700-1300	150	1010×1620×1160	450×600x530	15	320	400	25/3	80
K 200/13	1340	700-1300	200	1060×1800×1185	500×750×530	20	360	400	40/3	120
K 250/13	1340	700-1300	230	1090×1800x1230	520×800×550	23	420	400	40/3	120
K 300/13	1340	700-1300	310	1105×1820×1340	560×800×710	27	480	400	63/3	200
K 500/13	1340	700-1300	490	1460×1825×1460	650×1000×750	40	770	400	80/3	300
K 700/13	1340	700-1300	730	1550x1925x1610	750×1100×900	60	990	400	100/3	400
K 1000/13	1340	700-1300	1000	1570×2120×1775	800×1263×1000	75	2300	400	125/3	500
K 1500/13	1340	700-1300	1540	1800×2300×2050	950×1350×1200	110	2950	400	200/3	800
K 2000/13	1340	700-1300	2100	2150×2500×2450	1000×1500×1400	130	3300	400	250/3	1000
K 120/14	1400	700-1350	120	1010×1535×1140	450×530×500	10,5	230	400	16/3	80
K 150/14	1400	700-1350	150	1010×1620×1160	450×600x530	15	280	400	25/3	80
K 200/14	1400	700-1350	200	1060×1800×1185	500×750×530	20	310	400	40/3	120
K 250/14	1400	700-1350	230	1090×1800x1230	520×800×550	23	360	400	40/3	120
K 300/14	1400	700-1350	310	1105×1820×1340	560×800×710	27	420	400	63/3	200
K 500/14	1400	700-1350	490	1460×1825×1460	650×1000×750	40	700	400	80/3	300
K 700/14	1400	700-1350	730	1550x1925x1610	750×1100×900	60	920	400	100/3	400
K 1000/14	1400	700-1350	1000	1570×2120×1775	800×1263×1000	75	1550	400	125/3	500
K 1500/14	1400	700-1350	1540	1800×2300×2050	950×1350×1200	110	2600	400	200/3	800
K 2000/14	1400	700-1350	2100	2150×2500×2450	1000×1500×1400	130	2900	400	250/3	1000

For the kilns exterior dimension, the height is given including the stand (K 50 – K 300). The stand's height is 615 mm. The stated width includes the controller 160 mm (K 50 – K 300) and the switchboard 250 mm (K 500 – K 2000).
** Tmax is the maximum temperature which can be attained by the kiln, but is not suitable for long-term operation.*

VKK bogie-hearth furnace

up to 1280/1340 °C

This VKK bogie-hearth furnace is designed for all professional ceramists, production plants, firing of ceramics, earthenware, glasses, porcelain or decorating. Location of heating elements ensures excellently equal temperature distribution inside the furnace. The use of top insulating materials reduces energy consumption.

STANDARD FURNACE EQUIPMENT:

- Ht205 controller (30 programmes with 15 steps each)
- Resistance heating from five sides
  (meanders on four walls and spirals in the bogie)
- Limit unit
- "S" type thermocouple
- Solid state relay (smooth and noise-free operation,
  minimal interference with surrounding equipment)
- Manually operated ventilation flap
- Manually driven furnace bogie
- Rails 2,5 times the floor depth of the furnace
- Hand-operated left-hand door mounted on "C" hinge
- Switchboard on the side of the furnace
  (VKK 1000 – VKK 3000), larger models
  have free-standing switchboard

Perfect sealing door

Resistance heating on all walls including the door

VKK 1500

Heated bogie with covered heat spirals

Top-quality insulation materials (low energy consumption, smooth run-up)

Even temperature distribution in the internal space

Simple operation and installation

Atypical modifications

Shipment from 10 weeks

24 Warranty 24 months

Instant technical support

RECOMMENDED ACCESSORIES AT AN ADDITIONAL COST:

- Ht200 controller (30 programs with 25 steps each, USB interface)
- Automatic ventilation flap
- HtMonit EV set (include interface + software)
- RS-485 or LAN interface
- Digital temperature recorder
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 20 °C
- Electric bogie drive
- Rails embedded in the floor
- Door opening (electrohydraulic)
- Additional custom components such as uncontrolled or controlled forced overpressure cooling, flue gases combustion chamber, gas heating, second bogie and second doors

After consulting, we offer also other possibilities of modification of your equipment according to your requirements.
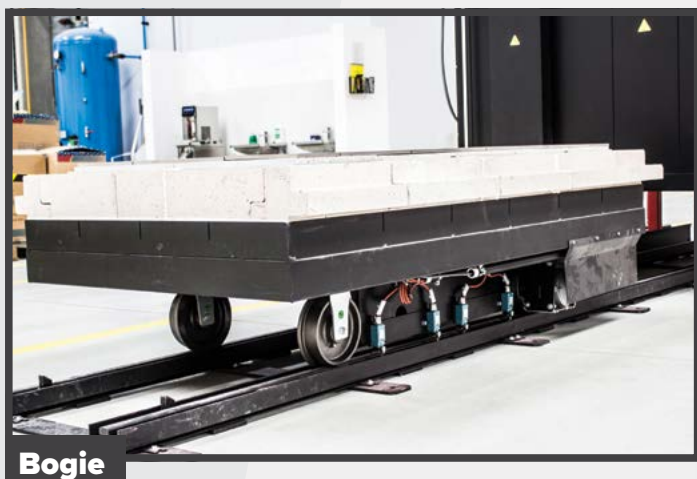
Bogie

Hand-operated door

Type	Tmax**	Recommended operating temperature range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Voltage	Protection*	Max. load capacity of bogie
	°C	°C	l	mm	mm	kW	kg	V	A	kg
VKK 1000/12	1280	700-1200	1290	2250x2000x2350	1100x900x1300	45	1500	400	80/3	2 000
VKK 1500/12	1280	700-1200	1650	2250x2100x2550	1100x1000x1500	70	1800	400	125/3	3 500
VKK 2000/12	1280	700-1200	2200	2250x2100x3100	1100x1000x2000	95	2200	400	160/3	3 500
VKK 3000/12	1280	700-1200	3030	2400x2200x3600	1100x1100x2500	130	2500	400	250/3	4 500
VKK 5000/12	1280	700-1200	7140	2500x2700x4400	1400x1500x3400	160	3200	400	400/3	5 000
VKK 7000/12	1280	700-1200	9660	2500x2700x5800	1400x1500x4600	195	4000	400	400/3	8 000
VKK 1000/13	1340	700-1250	1290	2250x2000x2350	1100x900x1300	65	1500	400	125/3	2 000
VKK 1500/13	1340	700-1250	1650	2250x2100x2550	1100x1000x1500	95	1800	400	160/3	3 500
VKK 2000/13	1340	700-1250	2200	2250x2100x3100	1100x1000x2000	115	2200	400	200/3	3 500
VKK 3000/13	1340	700-1250	3030	2400x2200x3600	1100x1100x2500	160	2500	400	400/3	4 500
VKK 5000/13	1340	700-1250	7140	2500x2700x4400	1400x1500x3400	200	3200	400	400/3	5 000
VKK 7000/13	1340	700-1250	9660	2500x2700x5800	1400x1500x4600	265	4000	400	630/3	8 000

Circuit breakers with possibility of switching the current adjustment are used for currents exceeding 160 A.
*** Tmax is the maximum temperature which can be attained by the furnace, but is not suitable for long-term operation.*

Firing aids and accessories

There are various firing aids available which serves for better utilisation of the internal furnace space.

INTERLAYER PLATES AND DISTANCE POLES

Particularly interlayer plates are used to protect the furnace bottom or as interlayer plates for firing on multiple floors (cordierite-mullite material). Ceramic interlayer spacing columns are used to build the floors. We can supply these aids in various standardized sizes but also in dimensions on request. Interlaying crosses are intended for specific charge position.

Warning:
New and unused interlaying plates must be dried before first firing. Temperature in furnace for this purpose should achieve 350 °C for approx. three and a half hours. After this process which protects the plate from cracking, it is possible to use the plates routinely.

Measurement and control

Ceramic furnaces LAC, they are fitted with the following types of quality PID controllers:

Type HTH8 (Ht200 / Ht205, HtCeramic, Ht40AL) for all types of kilns. Bentrup type (TC95 / TC75) for M type kiln. At the customer's request, some other types of furnaces can be fitted with Bentrup type controlers. These types of controllers are microprocessor controlled devices that meet all requirements to control the temperature and security of electrothermal equipment.

Typ	Ht200 / Ht205	HtCeramic	Ht40AL	TC95 / TC75
Designation	Programmable PID controller designed for industrial applications. Program Ht200 / Ht205 • 30 programs, 25 steps in program (Ht200) • 30 programs, 15 steps in program (Ht205)	Programmable PID controller designed for ceramic applications. Program HtCeramic: • 20 programs • 15 steps in program	Simple programmable PID controller. Program Ht40AL • 2x rise, 2x hold	Compact programmable PID controller for ceramic applications designed for M kilns. Program TC95 / TC75 • 20 programs, 20 steps in program (TC95) • 6 programs, 4 steps in program (TC75)
Measuring inputs	1 input: • temperature (Thermcouples + Pt100) • process (voltage, current) Accuracy 0,1 %	1 input: • temperature (Thermcouples + Pt100) • process (voltage, current) Accuracy 0,1 %	1 input: • temperature (Thermcouples + Pt100) • process (voltage, current) Accuracy 0,1 %	1 input: • temperature (thermocouple) Accuracy 0,1 %
Digital inputs	2 digital inputs	No	No	No
Outputs	7 outputs: • 2 controlling • 1 alarm • 4 auxiliary	3 outputs: • controlling • controlling/auxiliary • alarm	3 outputs: • controlling • auxiliary • alarm	3 outputs: • controlling • 2 auxiliary
Control	• PID heating control • PID cooling control • 2pos. heating control • 2pos. cooling control • 3pos. step control	• PID heating control • PID cooling control • 2pos. heating control • 2pos. cooling control	• PID heating control • 2pos. heating control	• PID heating control • PID cooling control
Autotunning	Yes	Yes	Yes	Yes
LCD display	Graphic	Numeric	Numeric	Graphic 2.8" (TC95) / numeric (TC75)
Communication line	2 lines (MODBUS™ RTU protocol): • 2x EIA-485 • LAN or RS-485 interface	1 line (MODBUS™ RTU protocol): • EIA-485 • RS-485 interface	1 line (MODBUS™ RTU protocol): • EIA-485 • RS-485 interface	Wi-Fi access via smartphone or PC (after registration on the website www.superwise.eu)
USB interface	Yes / No	No	No	Yes
Datalogger	Measured values (10000 Ht200 / 500 Ht205) Events records (5000 Ht200 / 200 Ht205) Ambient temperatures	500 records (date, time, measured and setting value, program)	No	Recording of all relevant process data for 48 hours
HtMonit EV set	Yes	Yes	Yes	No
	The set contains the program, communication interface for communication with PC. The universal program is designed for monitoring and keeping records of technological processes. It is possible to measure values from up to 4 devices fitted usually with a Ht series controller (meter), programs Ht200/Ht205 controller profiles, starts or ends programs.			
SuperWise App by Bentrup	No	No	No	Yes
	Control the kiln from your smartphone with the SuperWise app and monitor the firing process from anywhere. SuperWise provides full access via application, tablet or PC (after registration on the website www.superwise.eu).			

Description of accessories and explanation of terms

COOLING

Ventilation chimney

Ventilation of the inner furnace space, airflow cannot be controlled. A seal made of insulating material can be supplied.

Manually-controlled ventilation flap

Ventilation; the flap is opened or closed manually.

Automatic ventilation flap

Ventilation of the furnace inner space, flap opening or closing is controlled by the controller. The automatic ventialtion flap can only be used in combination with the Ht205 controller.

Forced cooling

Active cooling of the charge. Cool air is blown by the fan through the valve at the bottom of the furnace and then travels through the automatic ventilation flap into the furnace chamber. The furnace controller starts the fan and opens the flap according to the furnace cooling speed programmed. The forced cooling system can only be used in combination with the Ht200/Ht205 controller.

CALIBRATION

Optimization of the temperature field to fulfill DIN 17052-01

Adjustment of the internal airflow, or adjustment of the furnace heating system according to the information detected by furnace measuring equipment. These adjustments provide optimization of temperature distribution in the furnace; alternatively the furnace can be fine-tuned for a specific charge. Treatment is carried out at one temperature in the usable space of the furnace. Including the measurement report.

ELECTRO

Solid state relay — SSR

Switch devices which contain no moving parts that can make noise or that can be worn out by frequent switching are used to control furnace operations.

Ammeters for checking heating elements condition

Ammeters monitor incoming current to check the status of heating elements. Three ammeters are usually connected (according to the number of connected phases), An ammeter can be connected to each heating element separately for an additional surcharge.

Heating spirals from Kanthal APM material

The use of Kanthal APM material provides longer lifetime of heating elements in comparison with standard production design.

Alsint pipes

The carriers of heating spirals (pipes) from Alsint materiál that is resistant to higher temperatures. They are suitable especially for furnaces that are on a long-term basis operating at temperatures over 1200 °C.

Digital temperature recorder

It serves for displaying and recording of measured values (usually temperatures in furnace). The transfer of data from the recorder takes place through Ethernet or RS-485 interface. The data from the recorder can be copied onto the data storage units (SD card, USB flash disk).

Standards EIA-485 or Ethernet

Standards EIA-485 serve as a communication link between a PC and controller device. EIA-485 can connect up to 30 devices. Contains a connector (interface) RS-485 led out to an accessible location on the furnace. Ethernet standardize local area networks (LAN) between a PC and controller device. Contains a connector (interface) led out to an accessible location on the furnace.

Wi-fi access for Bentrup controllers

Get the furnace on your smartphone with SuperWise App and monitor the firing process from anywhere! SuperWise provides full access via app, tablet or PC (after registration on the website www.superwise.eu).

Monitoring software HtMonit

This program is designed for monitoring devices of Ht series.

The program allows:

- monitoring connected devices
- insert data into the database
- display measured data in the graph
- search in the graph and print graphs and tables
- program Ht200/Ht205 controller profiles
- start or end programs
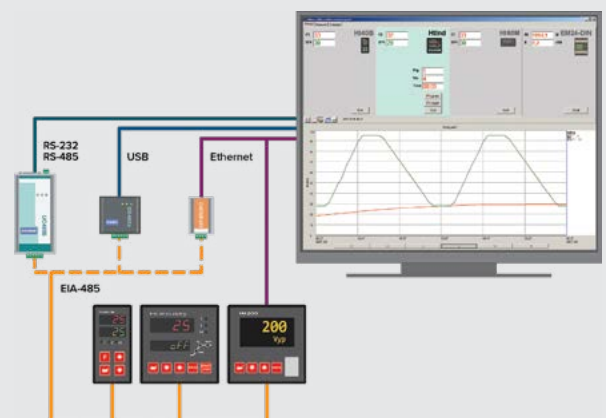
Industrial furnaces and dryers

Choose the type and model of an industrial furnace or dryer, or contact us with special requirements for customizing the equipment. At LAC, we manufacture many types of furnaces and dryers, and we will always suggest the best solution for you.

Low-temperature applications	Heat treatment	Furnaces for foundries

S dryer

up to 300 °C

PKE furnace

up to 1280 °C

PT Mk.II furnace

up to 1100 °C

YOU WILL FIND MORE IN THE "INDUSTRIAL FURNACES AND DRYERS" CATALOGUE

Industrial furnaces for additive manufacturing

Additive manufacturing presents new possibilities for material processing, brings about higher efficiency and reduces costs at production, testing and introducing new products. Objects or products are created on the basis of digital 3D models or other electronic data sources. Our furnaces are designated for all the technologies listed below, for metal processing – melting or sintering of metallic powders or fibres which do not contain additional binders.

DMLS – direct metal laser sintering MLS – micro laser sintering	SLM – selective laser melting DMLM – direct metal laser melting	LMF – laser metal fusion LMD – laser metal deposition

PP furnace

up to 850 °C

K furnace

up to 1300 °C

PKRC furnace

up to 950 °C

YOU WILL FIND MORE IN THE "INDUSTRIAL FURNACES FOR ADDITIVE MANUFACTURING" CATALOGUE"

Laboratory furnaces and dryers

Simplify your work with LAC laboratory furnaces and dryers. Take advantage of the simple controls and skip boring operator training. Choose one of the models, we have many in stock.

Laboratory chamber furnaces	Laboratory gravimetric furnaces	Laboratory tube furnaces

L furnace

up to 1200 °C

LG furnace

up to 1200 °C

LT furnace

up to 1300 °C

YOU WILL FIND MORE IN THE "LABORATORY FURNACES AND DRYERS" CATALOGUE

PRODUCTION PLANTS

PRODUCTION PLANT:
INDUSTRIAL FURNACES AND DRYERS
LAC, s. r. o.
Topolová 933
667 01 Židlochovice
Czech Republic

phone: +420 547 230 016
e-mail: info@lac.cz
www.lac.cz

PRODUCTION PLANT:
REFRACTORY CASTABLE SHAPES
LAC, s. r. o.
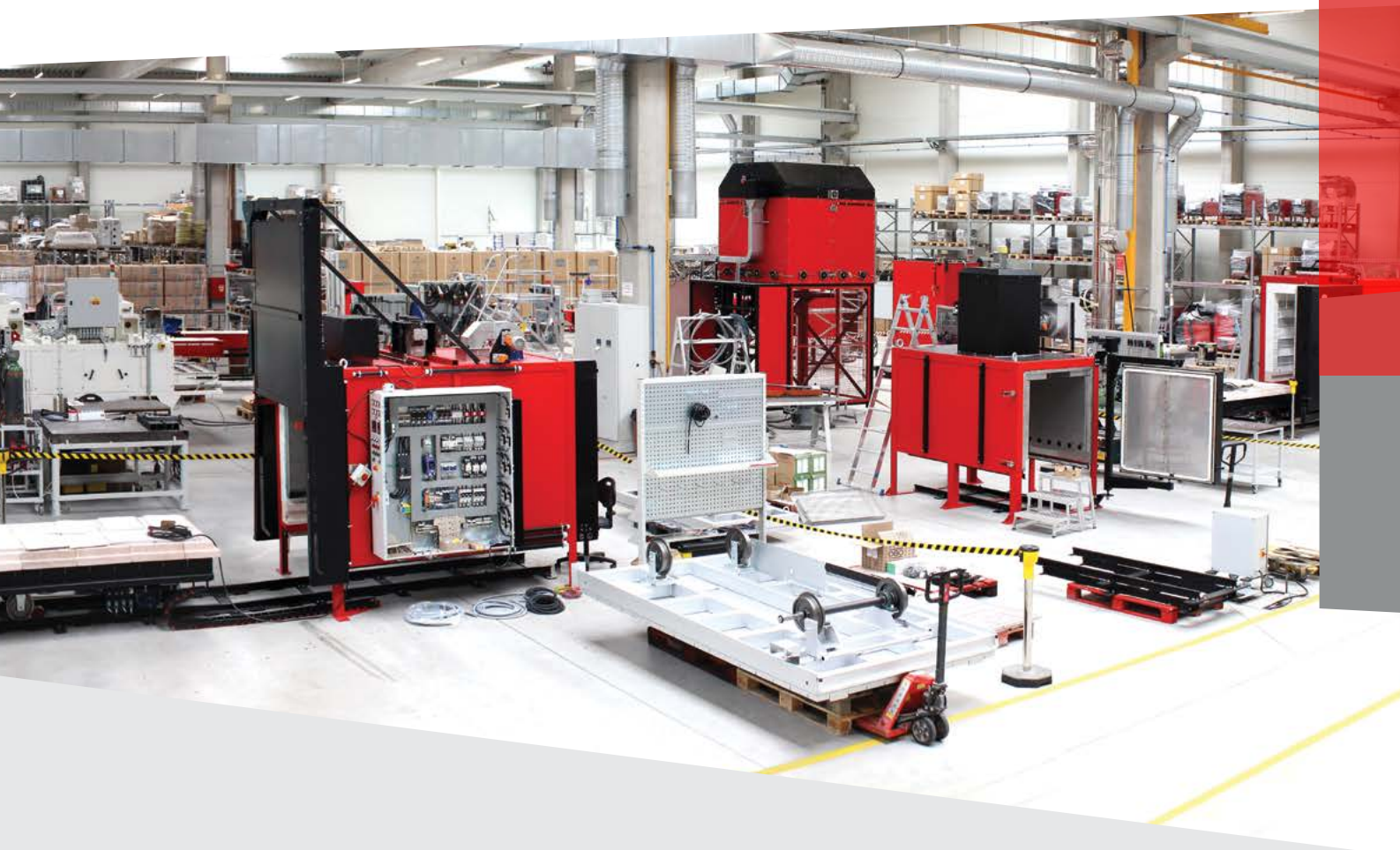Drnholecká 522
667 67 Hrušovany nad Jevišovkou
Czech Republic

phone: +420 515 238 211
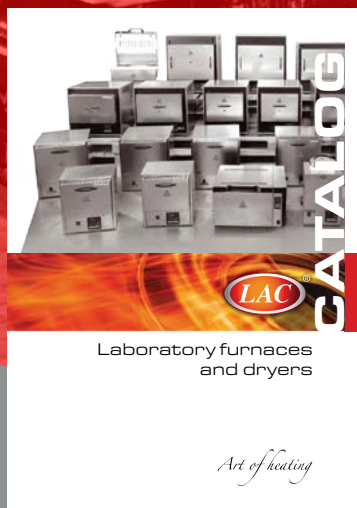**e-mail: office@lac.cz**
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CATALOG

INDUSTRIAL FURNACES
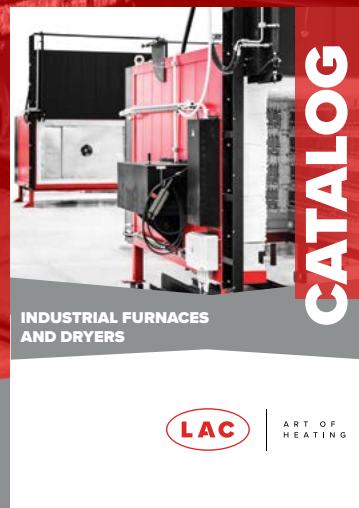FOR ADDITIVE MANUFACTURING

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