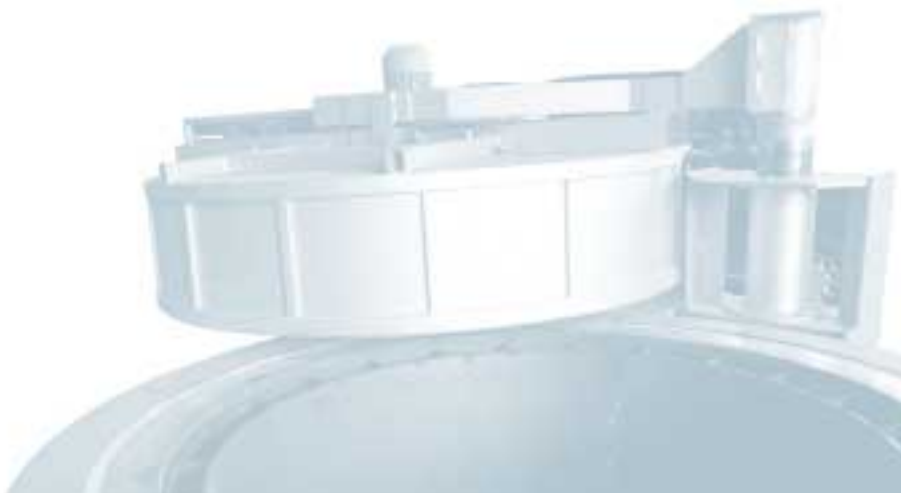


Kilns
for metal-working
industry



Kilns for metal-working industry

Introduction	3
Company profile	4
Car-hearth kilns	6
Chamber kilns	7
Shaft kilns	8
Rotary kilns	9
Roller kilns	10
Conveyor kilns	11
Pushing kilns	12
Tank kilns	13
Crucible kilns	14
Low temperature ovens	15



INTRODUCTION

Offer

Based on your inquiry we offer the best and convenient engineering solution. Once the kiln is manufactured we deliver it to your plant, we set it into operation and provide operator's training.

Operational temperatures

We develop and manufacture kilns for drying and firing of ceramics in the temperature field 20 – 1600 °C.

Standard a individual requests

In all categories we offer basic dimension range, which can be modified and updated as per individual requests. A frequently used option is the "made-to-measure" kiln.

Heating systems

- 1) gas heating
 - a) impulse burners with forced inlet of combustion air
 - b) injector middle pressure burners
 - c) radiant burners
 - d) monoblock automatic burners

- 2) electrical heating
 - a) resistant heating wire or strip
 - b) resistant jacket heaters

Control systems

As a standard we offer a wide range of microprocessor programmable controllers from renowned manufacturers with many operational options, including connection and data transfer to PC. For the most complicated technologies we offer programmable logic controllers with process visualization.

company profile

The company was founded in 1990. It focuses itself on:

- production of industrial kilns and drying ovens
- production of industrial ceramics – kiln furniture, muffles and stones for kilns building
- repairs, reconstructions and renovations of kilns
- production and deliveries of spare parts

The company insists on high quality of all products and provided services and it has won a significant reputation. There is a team of experienced engineers who constantly work on the development and apply new technical knowledge. Half of the production is exported to both European and over-sea markets.

SEPARATE CATALOGUES AVAILABLE

■ Kilns for metal-working industry



*Válečková plynová pec
pro kalení nožů*

- hardening plants
- forges
- press plants
- tool plants
- spring producing plants
- metal foundries
- pickling plants
- soldering
- galvanizing plants
- melting of metal scrap
- foundries of nonferrous metals
- low-temperature heating 100 – 500 °C

■ Kilns for glass industry



*Pokloповá elektrická pec
pro fusing*

- glass annealing
- glass casting
- decoration on glass
- glass bending
- glass polishing
- heat soak test
- fusing
- glass hardening
- malleablizing

■ Kilns for ceramics



*Vozová elektrická pec
pro výpal kachlí*

- biscuit firing
- glaze firing
- stoneware
- drying ovens



SEPARATE CATALOGUES AVAILABLE

■ Kilns for porcelain



Komorová plynová pec pro výpal porcelánu

- biscuit firing
- glaze firing
- decoration firing
- melting-in decoration firing
- drying ovens

■ Ovens for surface finishing
Drying ovens and low-temperature heating for all industries



Pásová plynová sušárna

- enamel hardening
- powder paints firing
- hardening
- artificial ageing
- heating
- forming

■ Industrial ceramics



- kiln furniture for firing of porcelain and ceramics
- muffles pro laboratory furnaces
- stones for kilns building



- VKG 1,4.3.1-12
- inner dimensions w.1400, d. 3000, h.1000 mm
- operational temperature up to 1250 °C
- gas heating – 400 kW
- electromechanical car motion
- door on both fronts

CAR-HEARTH KILNS

for annealing, tempering, hardening, firing of moulds

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
VKR 1.1,5.1-12	1250	1000	1500	1000	1500	2200	1950	56
VKR 1.2.1-12	1250	1000	2000	1000	1500	2700	1950	75
VKR 1.2,5.1-12	1250	1000	2500	1000	1500	3200	1950	120
VKR 1.3.1-12	1250	1000	3000	1000	1500	3700	1950	172
VKR 1,2.2.1-12	1250	1200	2000	1000	1700	2700	1950	110
VKR 1,2.2,5.1-12	1250	1200	2500	1000	1700	3200	1950	172
VKR 1,2.3.1-12	1250	1200	3000	1000	1700	3700	1950	185
VKR 1,4.2.1-12	1250	1400	2000	1000	1900	2700	1950	110
VKR 1,4.2,5.1-12	1250	1400	2500	1000	1900	3200	1950	172
VKR 1,4.3.1-12	1250	1400	3000	1000	1900	3700	1950	185
VKR 1,8.3.1-12	1250	1800	3000	1000	2300	3700	1950	235
VKR 1,8.3.1,4-12	1250	1800	3000	1400	2300	3700	2400	280
VKR 1,8.3,5.1,4-12	1250	1800	3500	1400	2300	4200	2400	300
VKR 1,8.4.1,4-12	1250	1800	4000	1400	2300	4700	2400	300

Design and options

- operational temperatures: 700 °C, 1100 °C, 1250 °C
- electromechanical car motion
- door opening: manual, door on side hinges
electromechanical, upwards
- electrical or gas heating
- insulation made of materials of high thermal resistance, optimized to the operational temperature and technology
- forced atmosphere circulation
- protective or active atmosphere controlled automatically (flow regulation and control)
- multi-zone control
- controlled cooling – forced ventilation
- covering plates for the car
- programmable logic controller (PLC) including software
- data records, transfer and save in PC
- “made-to-measure” dimensions
- heating power is to be considered as an information value



- KKR 05.06.04-12
- operational temperature 1200 °C
- electrical heating



- KKG 05.06.04-12
- operational temperature up to 1200 °C
- gas heating – 120 kW
- kiln output 100 kg/hour

CHAMBER KILNS

for tool plants, hardening plants and plants using kilns of small dimensions

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
KKR 04.05.03-12	1250	350	500	300	900	1100	1500	12
KKR 04.06.03-12	1250	350	600	300	900	1200	1500	14
KKR 04.08.03-12	1250	350	800	300	900	1400	1500	21
KKR 04.1.04-12	1250	350	1000	400	900	1600	1600	21
KKR 05.06.04-12	1250	500	600	400	1100	1200	1600	21
KKR 05.08.04-12	1250	500	800	400	1100	1400	1600	24
KKR 05.1.04-12	1250	500	1000	400	1100	1600	1600	30
KKR 07.08.05-12	1250	700	800	500	1300	1400	1700	33
KKR 07.1.05-12	1250	700	1000	500	1300	1600	1700	33
KKR 07.1.2.05-12	1250	700	1200	500	1300	1800	1700	37
KKR 07.1.07-12	1250	700	1000	700	1300	1600	1900	40
KKR 08.1.08-12	1250	800	1000	800	1400	1600	1950	52

Design and options

- operational temperature: 700 °C, 1100 °C, 1250 °C
- door opening: manual, door on side hinges
electromechanical, upwards
- heating: electrical – heating spirals on ceramic tubes
electrical – heating spirals embedded in stones
gas heating
- insulation made of materials of high thermal resistance, optimized to the operational temperature and technology
- forced atmosphere circulation
- protective or active atmosphere controlled automatically (flow regulation and control)
- protective sheet on the bottom
- box for thermal applications using active salts
- gas-tight muffle
- controlled cooling
- control systems made-to-measure
- data records, transfer and save in PC
- “made-to-measure” dimensions
- heating power is to be considered as an information value



- HKRX 1.1,4-7
- electrical heating
- convective heating
- nitrogen-atmosphere
- operational temperature up to 640 °C
- hydraulic lid opening



- HKRX 1,8.3-7
- electrical heating
- convective heating
- oxidizing atmosphere
- operational temperature up to 650 °C
- mechanical lid opening

SHAFT KILNS

for hardening, annealing, tempering, artificial ageing

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
HKRX 07.07-7	700	700	700		1400	1400	28	
HKRX 07.1-7	700	700	1000		1400	1700	37	
HKRX 1.08-7	700	1000	800		1700	1500	37	
HKRX 1.1-7	700	1000	1000		1700	1700	44	
HKRX 1.1,4-7	700	1000	1400		1700	2100	74	
HKRX 1.2-7	700	1000	2000		1700	2700	74	
HKRX 1,4.1,6-7	700	1400	1600		2100	2300	74	
HKRX 1,4.2,2-7	700	1400	2200		2100	2900	99	
HKRX 1,4.3-7	700	1400	3000		2100	3700	133	
HKRX 1,8.2-7	700	1700	2000		2400	2700	99	
HKRX 1,8.3-7	700	1700	3000		2400	3700	133	
HKRX 1,8.3,5-7	700	1700	3500		2400	4250	182	

Design and options

- operational temperature: 700 °C, 1100 °C, 1250 °C
- door opening: manual, door on side hinges
electromechanical, upwards
- electrical or gas heating
- insulation made of materials of high thermal resistance, optimized to the operational temperature and technology
- protective or active atmosphere
- multi-zone control
- forced atmosphere circulation
- power regulation of the circulation ventilator
- control system as per technological requests
- controlled cooling – forced ventilation
- loading tools
- “made-to-measure” dimensions
- heating power is to be considered as an information value



- LKG 1,8.05-12
- gas heating
- power of burners 120 kW
- operational temperature 1100 °C
- mechanical manual opening

ROTARY KILNS

for hardening, forging, pressing, heating of moulds for precision casting

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
LKR 1,4.05-12	1250	1400	500	2000	1700	66		
LKR 1,8.05-12	1250	1800	500	2400	1700	74		
LKR 2,4.05-12	1250	2400	500	3000	1900	124		

Design

- operational temperatures: 700 °C, 1000 °C, 1250 °C
- door opening: manual
electromechanical, pneumatic
- electrical or gas heating
- insulation made of materials of high thermal resistance, optimized to the operational temperature and technology
- multi-zone control
- forced atmosphere circulation (kilns up to 700 °C)
- power regulation of the circulation ventilators
- control system as per technological requests
- "made-to-measure" dimensions
- heating power is to be considered as an information value



- **RKG 08.9.03-13**
- operational temperature up to 1300 °C
- programmable logic controller
- gas heating
- reducing atmosphere
- conveying speed 3 – 120 mm/s
- conveying speed on output 120 – 800 mm/s
- operational width 800 mm
- total length 15500 mm
- capacity 600 kg/hour

ROLLER KILNS

for hardening plants, press plants, forges

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
RKG 06.9.03-12	1250	600	9000	300	1400	15000	1500	360
RKG 08.9.03-12	1250	800	9000	300	1600	15000	1500	600
RKG 1,2.9.03-12	1250	1200	9000	300	2100	15000	1500	900

Design and options

- modular concept of the kilns
- random length of the kiln as per technological and capacity requests
- operational temperatures: 700 °C, 1100 °C, 1250 °C
- insulation made of materials of high thermal resistance, optimized to the operational temperature and technology
- electrical or gas heating
- multi-zone control
- protective or active atmosphere
- forced atmosphere circulation
- utilization of the energy provided by combustion gases – in kiln input
- control system as per technological requests
- highly automated operation
- records of all operational and technological data, transfer to PC
- “made-to-measure” dimensions
- heating power is to be considered as an information value



- PKRX 06.6.03-6
- lamella conveyor
- for thermal treatment of springs
- operational temperature up to 400°C
- electrical heating
- conveying speed 1 – 3 mm/s
- conveyor width 600 mm
- total length 9000 mm
- capacity 150 kg/hour



- PKRX 1,2.4.01-3
- belt conveyor
- for hardening
- operational temperature up to 300°C
- electrical heating
- conveying speed 0,1 – 2 mm/s
- conveyor width 1000 mm
- total length 6500 mm

CONVEYOR KILNS

for thermal treatment of springs, soldering, hardening

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
PKRX 06.6.03-6	600	600	6000	300	1100	8000	1500	60
PKRX 08.6.03-6	600	800	6000	300	1300	8000	1500	75
PKRX 1,2.6.03-6	600	1200	6000	300	1700	8000	1500	100

Design and options

- modular concept of the kilns
- random length of the kiln as per technological and capacity requests
- operational temperatures: 100 °C, 400 °C, 600 °C, 900 °C
- insulation optimized to the operational temperature and technology
- electrical or gas heating
- multi-zone control
- protective or active atmosphere
- flame curtains
- forced atmosphere circulation
- control system as per technological requests
- automated operation
- records of all operational and technological data
- conveyor belts: knitted, lamella, raised edges
- "made-to-measure" dimensions
- heating power is to be considered as an information value



- SKR 04.2,5.02-10
- kiln for pressing copper parts
- electrical heating
- power 60 kW
- operational temperature 900 °C
- pneumatic material motion
- automatic loading from a
- capacity 70 kg/hour



- SKR 03.3.01-12
- kiln for forging
- electrical heating
- power 74 kW
- operational temperature 1150 °C
- pneumatic material motion
- automatic opening on output
- capacity 120 kg/hour

PECE STRKACÍ

for hardening, forging, pressing

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
SKR 04.3.02-12	1250	400	3000	200	1000	4000	1600	60
SKR 06.3.02-12	1250	600	3000	200	1200	4000	1600	74
SKR 08.3.02-12	1250	800	3000	200	1400	4000	1600	99

Design and options

- operational temperatures: 700 °C, 1000 °C, 1250 °C
- kiln opening: mechanically – manually, electromechanically, pneumatically
- electrical or gas heating
- multi-zone control
- forced atmosphere circulation (kilns up to 700 °C)
- control system as per technological requests
- automated operation with regard to other related machines
- “made-to-measure” dimensions
- heating power is to be considered as an information value



- **NHG 1,6.5,2.2,2-5**
- tank kiln for pickling
- inner dimensions w. 1600, d. 5200, h. 2200
- operational temperature 400 °C
- gas heating
- capacity 9 000 kg/hour

TANK KILNS

for pickling, galvanizing, tempering, hardening

Model	Temperature °C	Inner dimensions in mm			Outer dimensions in mm			Power kW
		w.	d.	h.	w.	d.	h.	
NHG 1.2.1.-5	500	1000	2000	1000	2000	3000	1400	240
NHG 1.3.1-5	500	1000	3000	1000	2000	4000	1400	360
NHG 1,2.3.1,2-5	500	1200	3000	1200	2200	4000	1400	360
NHG 1,6.3.2.2,2-5	500	1600	3200	2200	2900	4200	2600	720
NHG 1,6.5.5.2,2-5	500	1600	5500	2200	2900	6500	2600	900
NHG 1,6.6.7.2,2-5	500	1600	7200	2200	2900	8200	2600	1500
NHG 1,6.8.2.2,2-5	500	1600	8200	2200	2900	9200	2600	2100

Design and options

- insulation made of materials of high thermal resistance, optimized to the operational temperature and technology
- gas heating or electrical heating
- multi-zone control
- control system as per technological requests
- highly automated operation
- records of all operational and technological data, transfer to PC
- “made-to-measure” dimensions
- heating power is to be considered as an information value



- CAL 200
- crucible volume 5200 kg
- operational temperature up to 1000 °C
- electrical heating

CRUCIBLE KILNS

for holding and melting of nonferrous metals

Kilns for holding Al electrically heated	Temperature °C	Volume of Al (kg)	Outer dimensions in mm			Power kW	Weight kg	Consumption kWhour
			w.	d.	h.			
CAL 50-10	1000	50	950	950	900	14	540	4 / 8
CAL 100-10	1000	100	1000	1000	900	21	590	4 / 8
CAL 150-10	1000	150	1000	1000	1050	24	640	4 / 8
CAL 200-10	1000	200	1150	1150	1050	27	680	5 / 10
CAL 300-10	1000	300	1250	1250	1150	30	920	5 / 10
CAL 350-10	1000	350	1250	1250	1300	34	950	5 / 10
CAL 500-10	1000	500	1450	1450	1300	42	1130	7 / 15
CAL 600-10	1000	600	1450	1450	1400	50	1260	7 / 15

Kilns for holding Al gas heated	Temperature °C	Volume of Al (kg)	Outer dimensions in mm			Power kW	Weight kg	Consumption kWhour
			w.	d.	h.			
CALG 200-10	1000	200	1150	1150	1050	50	730	10 / 20
CALG 300-10	1000	300	1250	1250	1150	50	970	10 / 20
CALG 350-10	1000	350	1250	1250	1300	50	1000	12 / 25
CALG 500-10	1000	500	1450	1450	1300	100	1200	15 / 30
CALG 600-10	1000	600	1450	1450	1400	100	1330	15 / 30

Kilns for melting of Al & Cu electrically heated	Temperature °C	Volume of Al Cu (kg)		Outer dimensions in mm			Power kW	Weight kg	Al Cu kWhour	
		Al	Cu	w.	d.	h.			Al	Cu
CCM 20-12	1200	20	65	900	900	800	14	490	30	42
CCM 45-12	1200	45	150	950	950	800	21	540	42	60
CCM 90-12	1200	90	300	1000	1000	900	27	590	60	85
CCM 200-12	1200	200	650	1150	1150	1050	50	680	120	180
CCM 300-12	1200	300	1000	1250	1250	1150	60	920	145	210
CCM 350-12	1200	350	1150	1250	1250	1300	66	950	160	240
CCM 500-12	1200	500	1600	1450	1450	1300	74	1130	185	275
CCM 600-12	1200	600	2000	1450	1450	1400	84	1260	210	310

Kilns for melting of Al & Cu gas heated	Temperature °C	Volume of Al Cu (kg)		Outer dimensions in mm			Power kW	Weight kg	Al Cu kWhour	
		Al	Cu	w.	d.	h.			Al	Cu
CCMG 20-12	1200	20	65	900	900	800	30	530	18	24
CCMG 45-12	1200	45	150	950	950	800	50	580	35	40
CCMG 90-12	1200	90	300	1000	1000	900	100	650	70	80
CCMG 200-12	1200	200	650	1150	1150	1050	200	730	160	180
CCMG 300-12	1200	300	1000	1250	1250	1150	250	970	180	200
CCMG 350-12	1200	350	1150	1250	1250	1300	250	1000	190	220
CCMG 500-12	1200	500	1600	1450	1450	1300	300	1200	230	300
CCMG 600-12	1200	600	2000	1450	1450	1400	300	1330	250	330

Design and options

- crucible kilns
- tank kilns
- heating: electrical – heating spirals on ceramic tubes
gas
- sealed crucible
- protective cast-iron collar
- side evacuation of combustion gases (gas-heated crucibles)
- easy lid opening and closing
- tilting version: kiln on a solid construction, hydraulic tilting
- "made-to-measure" dimensions
- heating power is to be considered as an information value



- K-RX 04.04.04-2
- chamber oven for tests on condensers
- inner dimensions w. 400, d. 400, h. 400 mm
- operational temperature 200 °C
- electrical heating
- temperature stability + - 1 °C



- K-RX 1,6.1,6.2-3
- chamber oven for hardening
- inner dimensions w. 1600, d. 1600, h. 2000 mm
- operational temperature 250 °C
- electrical heating
- explosion-proof version

LOW TEMPERATURE OVENS UP TO 200 °C (500 °C)

for hardening, drying, artificial ageing, warming, forming



- K-RX 1,3.1,3.1,8-3
- oven with cooling shower for forming of tubes for automotive industry
- inner dimensions w. 1300, d. 1300, h. 1800
- operational temperature 220 °C
- electrical heating
- automatic transport of the batch
- operational cycle 30 min
- process control by programmable logic controller MITSUBISHI



- P-GX 2,2.12.02-3
- continuous oven for drying of insulation boards
- inner dimensions w. 2200, d. 12000, h. 200 mm
- operational temperature 300 °C
- gas heating – 1000 kW
- speed of transportation belt 3 – 50 mm/sec
- process control by programmable logic controller SIMATIC

Design and options

We have been manufacturing low temperature ovens successfully for many years. Our offer includes development and production “made-to-measure” for wide technological range

- inner space made of common or stainless materials
- thermal insulation of composite material with high thermal resistance
- heating : electrical, direct gas , indirect gas
- detection of volatiles, explosion-proof versions
- control systems: from PID microprocessor controllers to programmable logic controllers incl. software

You can find more information about low temperature ovens in the separate catalogue.



GPS
50° 16' 7,35" W
12° 52' 53,9" E

Podlesí 103
360 01 Karlovy Vary
tel. +420 353 449 238
fax +420 353 449 237
bvd@bvd.cz
www.bvd.cz