



CATALOG

INDUSTRIAL FURNACES AND DRYERS



ART OF
HEATING



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, 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

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CONTENT ACCORDING TO PURPOSE AND APPLICATION OF FURNACES

NON-FERROUS METAL FOUNDRIES

Melting and holding		Drying		Preheating		Heat treatment		
700-1200 °C		200-450 °C		200-450 °C		450-500 °C		
• Melting and holding		• Drying molds and cores		• Preheating molds and blanks		• Solution annealing		
PT Mk.II	38	S	10	S	10	KNC/H, KNC/V	16	
PTE Mk.II	38	SV Mk.II	12	SV Mk.II	12	VKNC	20	
PTT Mk.II	38	SVK	16	SVK	16	PP	24	
PTS	42			KNC/H, KNC/V	18	KNC/V + KLV	53	
PTP	44			VKNC	20			
PTSP	46			900-1280 °C		• Rapid cooling in bath		
PTPR	48			• Preheating shell molds		KLV		36
PTSPR	50			VKT	22	450-850 °C		
				PK	26	• Annealing		
						• Solution annealing		
				VKNC	20			
				PP	24			
				KNC/H, KNC/V	18			
				KNC/V + KLV	53			
				250-450 °C				
				• Artificial aging				
				SV Mk.II	12			
				SVK	16			

FERROUS METAL FOUNDRIES

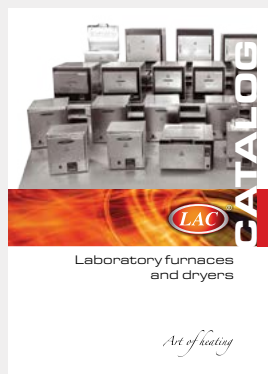
Preheating		Annealing		Heat treatment	
250-450 °C		450-1260 °C		900-1280 °C	
• Preheating castings		• Soft annealing		• Solution annealing	
• Preheating molds		• Annealing for stress relieving			
S	10	KNC/H, KNC/V	18	PKE	28
SV Mk.II	12	VKT	22	PK	26
SVK	16	VKNC	20	PKR	30
		PP	24	PKRC	30
		SC	32		
		SRC	32		

MORE FURNACES AND DRYERS CAN BE FOUND IN THE CATALOG:

Industrial furnaces for additive manufacturing



Laboratory furnaces and dryers



Furnaces for ceramics and glass



HEAT TREATMENT OF METALS

Preheating		Annealing		Quenching		Cooling		Tempering		Chemical heat treatment			
900-1280 °C		900-1280 °C		800-1280 °C		20-60 °C		200-450 °C		900-1100 °C			
• Preheating before forging • Preheating molds		• Homogenization annealing		• Quenching		• Water, polymer		• Low temperature tempering		• Carburizing			
VKT	22	VKT	22	VKT	22	KK	35	SV Mk.II	12	PKE	28		
PKE	28	PK	26	PKE	28	KLV	36	SVK	16	PK	26		
PK	26	900-1280 °C		PK	26	60-200 °C		KNC/H, KNC/V	18	SRC	32		
		• Normalization annealing		PKR	30	• Oil		VKNC	20	KSL	37		
				PKRC	30	• Salt bath		PP	24	450-500 °C			
				KSL	37	• Air		SC	32	• Nitriding • Carbonitriding			
		VKT	22	900-1280 °C		450 °C		450-900 °C		PKRC		30	
		VKNC	20	• Solution annealing		• Salt bath		• High temperature tempering • Curing		SRC		32	
		PK	26	PKE	28	KSL		37	KNC/H, KNC/V		18		
		PKR	30	PK	26	SKV, SKM		34	VKNC		20		
		PKRC	30	PKR	30				PP		24		
		SRC	32	PKRC	30				PKR		30		
		450-900 °C							PKRC		30		
		• Soft annealing • Annealing for stress relieving • Recrystallization annealing • Artificial aging							SC		32		
		KNC/H, KNC/V	18						SRC		32		
		VKT	22						PP (semigas)		24		
		VKNC	20						PKR		30		
		PP	24						PKRC		30		
		SC	32						SC		32		
		SRC	32						SRC		32		
									KSL		37		

HEAT TREATMENT – LOW TEMPERATURE APPLICATIONS

PROCESSED CHARGE											
Plastics Rubber Electrical parts/components Textil Building material Glass Chemical substances Food											
50-450 °C											
Drying		Curing		Tempering		Firing		Vulcanization		Preheating	
S	10	S	10	S	10	S	10	S	10	S	10
SV Mk.II	12	SV Mk.II	12	SV Mk.II	12	SV Mk.II	12	SV Mk.II	12	SV Mk.II	12
SVK	16	SVK	16	SVK	16	SVK	16	SVK	16	SVK	16

Subject to technical changes.
The values indicated in the catalogue are only of an informative character.
Edition 8/2024.

Classification of furnaces according to batch processing technology

FURNACE	S	SV Mk.II	SVK	KNC/H	VKNC	VKT	PP	PK	PKE	PKRC	PKR	SRC	SC
Recommended operating temp. range	100-300 °C	100-300 °C	100-450 °C	300-800 °C	300-800 °C	700-1200 °C	200-800 °C	700-1200 °C	700-1200 °C	700-1000 °C	700-1000 °C	600-1050 °C	300-800 °C
Cementing								🔥	🔥				
Hardening						🔥		🔥	🔥				
Nitriding, carbonitriding										🔥		🔥	
Low-temperature material treatment	🔥	🔥	🔥										
Elimination of acid brittleness	🔥	🔥	🔥										
Heating and drying	🔥	🔥					🔥						
Cooling (air, water, polymer, oil)													
Soldering										🔥		🔥	
Tempering of tool steels with protective atmosphere							🔥			🔥	🔥	🔥	🔥
Low-temperature – tempering		🔥		🔥	🔥		🔥						🔥
High-temperature – tempering				🔥	🔥		🔥			🔥	🔥	🔥	🔥
Preheating	🔥		🔥	🔥	🔥		🔥						
Preheating (moulds) before forging						🔥		🔥	🔥				
Preheating moulds	🔥		🔥			🔥		🔥	🔥				
Preheating reusable moulds and semi-finished products	🔥	🔥	🔥	🔥	🔥								
Preheating castings	🔥		🔥			🔥							
Preheating shell moulds						🔥		🔥					
Sintering powdered metals										🔥		🔥	
Sintering							🔥	🔥		🔥	🔥		
Drying, drying of moulds and cores, drying	🔥	🔥	🔥										
Melting of aluminium and aluminium alloys													
Tempering	🔥	🔥	🔥										
Tempering of rubber and electric components		🔥											
Material testing	🔥						🔥	🔥		🔥	🔥		
Holding of aluminium and aluminium alloys													
Artificial ageing				🔥	🔥	🔥	🔥					🔥	🔥
Artificial ageing of aluminium and its alloys		🔥	🔥										
Vulcanization	🔥	🔥											
Enamel firing							🔥	🔥					
Firing (of e.g. Insulation paints)	🔥	🔥	🔥										
Mould drying				🔥	🔥								
Granulate drying		🔥	🔥										
Surface finish hardening	🔥	🔥	🔥										
Burning-in of electrical components		🔥	🔥										
Incineration, combustion, annealing loss							🔥	🔥					
Annealing				🔥	🔥		🔥						
Annealing for relieving internal stress, soft annealing				🔥	🔥	🔥	🔥					🔥	🔥
Homogenisation annealing						🔥		🔥					
Recrystallisation annealing				🔥	🔥	🔥	🔥					🔥	🔥
Solution annealing								🔥	🔥	🔥	🔥		
Normalisation annealing					🔥	🔥		🔥		🔥	🔥	🔥	

	SKM SKV	KK	KLO KLV	KSL	PT Mk.II	PTE Mk.II	PTT Mk.II	PTS	PTP	PTSP	PTPR	PTSPR	FURNACE
	20-450 °C	20-200 °C	20-200 °C	500-1000 °C	650-850 °C	650-850 °C	650-850 °C	650-1000 °C	650-1000 °C	650-1000 °C	650-1000 °C	650-1000 °C	Recommended operating temperature range
				🔥									Cementing
	🔥	🔥	🔥	🔥									Hardening
													Nitriding, carbonitriding
													Low-temperature material treatment
													Elimination of acid brittleness
													Heating and drying
	🔥	🔥	🔥										Cooling (air, water, polymer, oil)
													Soldering
				🔥									Tempering of tool steels with protective atmosphere
													Low-temperature – tempering
													High-temperature – tempering
													Preheating
													Preheating (moulds) before forging
													Preheating moulds
													Preheating reusable moulds and semi-finished products
													Preheating castings
													Preheating shell moulds
													Sintering powdered metals
													Sintering
													Drying, drying of moulds and cores, drying
					🔥			🔥	🔥	🔥	🔥	🔥	Melting of aluminium and aluminium alloys
													Tempering
													Tempering of rubber and electric components
													Material testing
					🔥	🔥	🔥		🔥				Holding of aluminium and aluminium alloys
													Artificial ageing
													Artificial ageing of aluminium and its alloys
													Vulcanization
													Enamel firing
													Firing (of e.g. Insulation paints)
													Mould drying
													Granulate drying
													Surface finish hardening
													Burning-in of electrical components
													Incineration, combustion, annealing loss
													Annealing
													Annealing for relieving internal stress, soft annealing
													Homogenisation annealing
													Recrystallisation annealing
	🔥	🔥											Solution annealing
													Normalisation annealing

S dryers

up to 200/300 °C

S chamber dryers & ovens are robust industrial devices designed for drying, vulcanizing, preheating, hardening, and other low-temperature treatments of a variety of materials. The dryer's stainless steel muffle ensures the long service life of the unit as it is very chemically and mechanically resistant. Thanks to the horizontal internal atmosphere circulation, S dryers also boast an even temperature distribution.

Easy increase
of heating output

Mechanical and chemical
durability

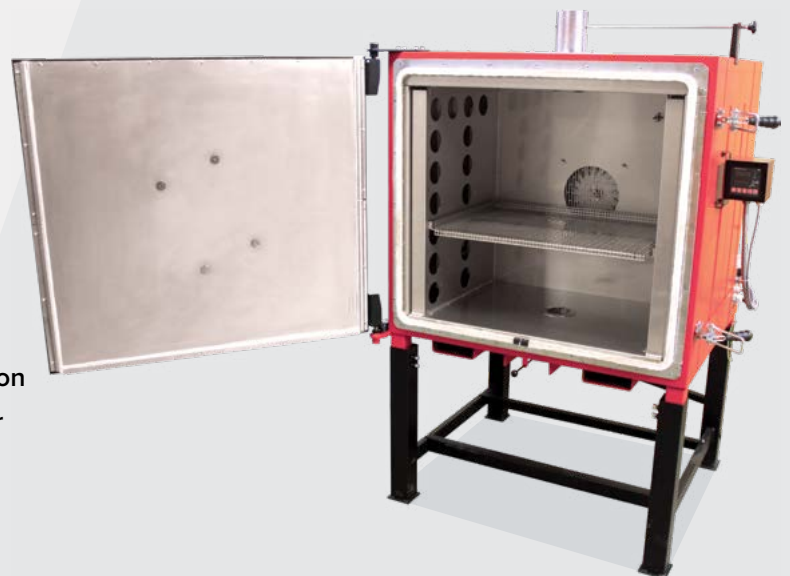
Robust industrial
design



S 400

STANDARD DRYER EQUIPMENT:

- Ht40AL controller
- Resistance heating (heating elements)
- Thermostat (use as a limit unit)
- Manually controlled exhaust flap
- Manually controlled suction flap
- "K" type thermocouple
- Contactless switching relay for noise-free operation
- Door limit switch for the safe opening of the dryer
- Stand
- Shelf (1 pcs.)



Simple operation
and installation



Atypical
modifications



Shipment from
6 weeks



Warranty
24 months

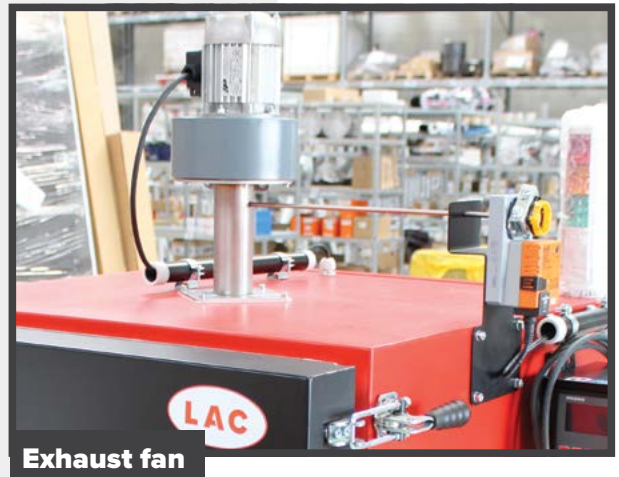
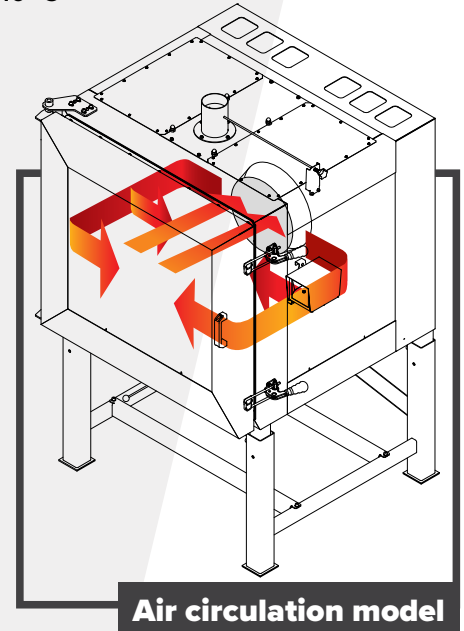


Instant
technical support

RECOMMENDED ACCESSORIES:

- Ht205 controller (30 programmes with 15 steps) or Ht200 controller (30 programmes with 25 steps, USB interface)
- Automatic ventilation and suction flap for cooling the dryer's operational space (Ht205 or Ht200 controller is needed)
- Exhaust fan for drawing of flue gases (Ht205 or Ht200 controller is needed)
- METREX gas analyzer (Ht205 or Ht200 controller is needed)
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 10 °C
- HtMonit EV set (include software + interface)
- Modification for the rubber industry
- Door opening upwards (manual or pneumatic)
- Handling castors
- Additional shelves

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



Type	Tmax	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Voltage	Number of fans	Protection*	Max. load capacity of shelves	Max. load capacity of bottom
	°C	°C	l	mm	mm	kW	kg	V	pcs	A	kg	kg
S 60/02	200	100-200	60	1050×1350×950	450×300×450	2	130	230	1	16/1	15	40
S 100/02	200	100-200	100	1050×1550×1000	450×500×450	3	180	230	2	16/1	15	50
S 250/02	200	100-200	240	1400×1550×1200	800×500×600	4	250	400	1	16/3	25	70
S 400/02	200	100-200	380	1400×1750×1200	800×800×600	4	350	400	1	16/3	25	70
S 60/03	300	100-300	60	1050×1350×950	450×300×450	3	130	230	1	16/1	15	40
S 100/03	300	100-300	100	1050×1550×1000	450×500×450	3	180	230	2	16/1	15	50
S 250/03	300	100-300	240	1400×1550×1200	800×500×600	4	250	400	1	16/3	25	70
S 400/03	300	100-300	380	1400×1850×1200	800×800×600	6	350	400	1	16/3	25	70

* Protection can vary depending on the accessories chosen (for an extra charge).

SV Mk.II dryers

up to 300 °C

SV Mk.II chamber dryers & ovens are versatile for various low-temperature production processes (drying, hardening, preheating, vulcanization, artificial aging of aluminum and others). Thanks to the horizontal circulation of the internal atmosphere, they achieve an even distribution of temperatures in the working chamber. Their compact and modular design with a central heating and fan unit on the ceiling enables efficient use of the built-in space. A wide range of accessories, the possibility of custom modifications and a very short delivery time are indisputable benefits.

Powerful heating
and fan unit

Temperature distribution
 ΔT 6 °C up to a vol. 6000 l

Quick rise and stabilization
to max. temperature



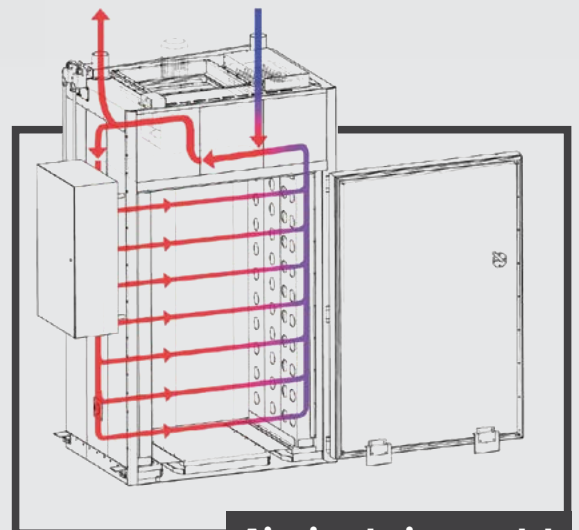
SV 8000 Mk.II



SV 3002 Mk.II

STANDARD DRYER EQUIPMENT:

- Ht40P controller (10 programmes with 15 steps each)
- Resistance heating (heating and fan unit)
- Bottom modification for a trolley or smooth bottom
- Safety handle
- Thermostat (use as a limit unit)
- Manually controlled ventilation and suction flap
- "K" type thermocouple
- Contactless switching relay for noise-free operation
- Door limit switch for the safe opening of the dryer
- Switchboard on side of the dryer
- One-wing door manually opened to the right (for volumes up to 4000 l); two-wing door (for volumes over 4000 l)



Air circulation model



Simple operation
and installation



Atypical
modifications



Shipment from
7 weeks



Reduction
of emissions



Cost
saving



Warranty
24 months



Instant
technical support

RECOMMENDED ACCESSORIES:

- Ht205 controller (30 programmes with 15 steps) or Ht200 controller (30 programmes with 25 steps, USB interface)
- Automatic ventilation and suction flap for cooling the dryer's operational space (Ht205 or Ht200 controller is needed)
- Exhaust fan for drawing of flue gases (Ht205 or Ht200 controller is needed)
- Controlled underpressure forced cooling (Ht205 or Ht200 controller is needed)
- METREX gas analyzer (Ht205 or Ht200 controller is needed)
- Modification for the rubber industry
- Door opening upwards (electrohydraulic)
- Ammeters to check the condition of heating elements
- Power consumption monitoring with visual output
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 4 °C (applies to dryers with a flat bottom and up to a volume of 6000 l)
- Can be delivered in the design meeting AMS 2750, CQI-9 standard
- HtMonit EV set (include software + interface)
- Charging trolley or loading frame with shelves

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



Circulation unit, ventilation flap and exhaust fan



Switchboard of the dryer



Charging trolley



Loading frame

Technical parameters.

Type	Tmax	Recommended operating temp. range	Volume	External dimensions** (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Voltage	Protection*
	°C	°C	l	mm	mm	kW	kg	V	A
SV 650/30 Mk.II	300	100-300	650	1800×1750×1200	1000×800×800	12	656	400	25/3
SV 1001/30 Mk.II	300	100-300	1000	1800×2150×1200	1000×1200×800	12	740	400	25/3
SV 1002/30 Mk.II	300	100-300	1000	1800×1950×1400	1000×1000×1000	12	760	400	25/3
SV 1501/30 Mk.II	300	100-300	1500	1800×2750×1200	1000×1800×800	18	886	400	40/3
SV 1502/30 Mk.II	300	100-300	1500	1800×2050×1800	1000×1100×1400	18	1000	400	40/3
SV 1700/30 Mk.II	300	100-300	1700	1800×2650×1400	1000×1700×1000	24	970	400	50/3
SV 2400/30 Mk.II	300	100-300	2400	1800×2650×1800	1000×1700×1400	24	1200	400	50/3
SV 3001/30 Mk.II	300	100-300	3000	1800×3150×1800	1000×2200×1400	24	1328	400	50/3
SV 3002/30 Mk.II	300	100-300	3000	1800×2650×2200	1000×1700×1800	24	1450	400	50/3
SV 3300/30 Mk.II	300	100-300	3300	1900×2950×1900	1100×2000×1500	24	1450	400	50/3
SV 4000/30 Mk.II	300	100-300	4000	2000×2950×2000	1200×2000×1600	30	1550	400	63/3
SV 4500/30 Mk.II	300	100-300	4500	2800×2150×2300	2000×1200×1900	36	1800	400	80/3
SV 5000/30 Mk.II	300	100-300	5000	2500×2650×2100	1700×1700×1700	48	1750	400	100/3
SV 6001/30 Mk.II	300	100-300	6000	2700×3150×1800	1900×2200×1400	60	1850	400	125/3
SV 6002/30 Mk.II	300	100-300	6000	2800×2450×2400	2000×1500×2000	60	2050	400	125/3
SV 8000/30 Mk.II	300	100-300	8000	2800×2950×2400	2000×2000×2000	72	2300	400	160/3

* Protection can vary depending on the accessories chosen (for a surcharge).

** External dimensions are listed without switchboard.

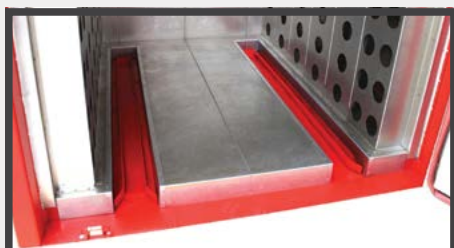
Additional technical parameters for charging trolleys and loading frames.

Type	Max. load capacity of bottom (kg)	Max. load capacity of shelves (kg)	Spacing of entries for trolley A (mm)
SV 650 Mk.II	400	50	750
SV 1001 Mk.II / SV 1002 Mk.II	400	50	750
SV 1501 Mk.II / SV 1502 Mk.II	400	50	750
SV 1700 Mk.II	500	50	750
SV 2400 Mk.II	700	50	750
SV 3001 Mk.II / SV 3002 Mk.II	700	50	750
SV 3300 Mk.II	800	50	850
SV 4000 Mk.II	1200	50	950
SV 4500 Mk.II	2000	50	1750
SV 5000 Mk.II	2000	50	1450
SV 6001 Mk.II / SV 6002 Mk.II	2000	50	1650 / 1750
SV 8000 Mk.II	2000	50	1750

Spacing of entries for trolley



MODIFICATION OF THE DRYER BOTTOM:



Bottom modification for a trolley



Flat bottom



U-profiles for loading with a forklift or low-lift truck

DRYERS IN WHICH FLAMMABLE SUBSTANCES ARE RELEASED (EN 1539 STANDARD)

We make these dryers also in the SV Mk.II (EN 1539) version with safety equipment according to industrial standard EN 1539 (as well as the American industrial standard NFPA 86), suitable for various production processes during which flammable substances are released (e.g. volatile organic compounds VOC). Typical applications are the drying of molding varnishes, surface coatings and impregnation resins. The safety concept prevents explosive mixture formation through continuous ventilation. The standard design of the dryers corresponds to the requirements of the EN 1539 standard for Dryer type A, and for operating area No. 1.

Type	Tmax	Volume	External dimensions* (w×h×d)	Internal dimensions (w×h×d)	Heating	Flue exhaust	The maximum permissible amount of flammable substance released in grams at different temperatures**					Max. load capacity of bottom
	°C	°C	mm	mm	kW	m³/h	100 °C	150 °C	200 °C	250 °C	300 °C	kg
SV 650/30 Mk.II (EN 1539)	300	650	1800×2450×1200	1000×800×800	24	200	88	52	33	25	20	150
SV 1001/30 Mk.II (EN 1539)	300	1000	1800×2850×1200	1000×1200×800	24	200	95	57	37	28	23	200
SV 1002/30 Mk.II (EN 1539)	300	1000	1800×2650×1400	1000×1000×1000	24	200	95	57	37	28	23	200
SV 1501/30 Mk.II (EN 1539)	300	1500	1800×3450×1200	1000×1800×800	30	200	104	63	42	32	26	350
SV 1502/30 Mk.II (EN 1539)	300	1500	1800×2750×1800	1000×1100×1400	30	200	104	63	42	32	26	350
SV 1700/30 Mk.II (EN 1539)	300	1700	1800×3350×1400	1000×1700×1000	36	200	108	66	43	33	28	400
SV 2400/30 Mk.II (EN 1539)	300	2400	1800×3350×1800	1000×1700×1400	36	250	137	84	56	43	36	600
SV 3001/30 Mk.II (EN 1539)	300	3000	1800×3850×1800	1000×2200×1400	48	250	148	92	61	47	40	700
SV 3002/30 Mk.II (EN 1539)	300	3000	1800×3350×2200	1000×1700×1800	48	250	148	92	61	47	40	700
SV 3300/30 Mk.II (EN 1539)	300	3300	1900×3650×1900	1100×2000×1500	48	250	153	95	64	49	42	800
SV 4000/30 Mk.II (EN 1539)	300	4000	2000×3650×2000	1200×2000×1600	60	400	217	133	88	67	56	1200
SV 4500/30 Mk.II (EN 1539)	300	4500	2800×2850×2300	2000×1200×1900	60	400	226	139	92	71	59	2000
SV 5000/30 Mk.II (EN 1539)	300	5000	2500×3350×2100	1700×1700×1700	60	400	234	145	97	75	63	2000
SV 6001/30 Mk.II (EN 1539)	300	6000	2700×3850×1800	1900×2200×1400	84	500	287	177	118	90	76	2000
SV 6002/30 Mk.II (EN 1539)	300	6000	2800×3150×2400	2000×1500×2000	84	500	287	177	18	90	76	2000
SV 8000/30 Mk.II (EN 1539)	300	8000	2800×3650×2400	2000×2000×2000	108	500	320	201	136	105	89	2000

* External dimensions are listed without switchboard.

** If chamber dryers are used for drying molding varnishes, the data on the maximum permissible amount of flammable substance for drying the surface can be increased up to 10 times. If chamber dryers are used for drying impregnation resins, the data on the maximum permissible amount of flammable substance for surface drying can be increased up to 20 times. The calculated values of the maximum permissible amount of flammable substance were determined for the specified exhaust value and further for the following general parameters of flammable substances: flash point Δ LEL=20 %/100K, lower explosive limit LEL₂₀=40 g/m³, 100 % content of releasable flammable substances from the paints, zero losses through pre-drying.

SV MK.II DRYER EQUIPMENT ACCORDING TO EN 1539 STANDARD:

- Ht205 controller controller (30 programmes with 15 steps)
- Exhaust fan with extracted air volume 200-500 m³/hour depending on the volume of the dryer
- Automatic ventilation flap
- Automatic suction flap
- Muffle (working chamber) sealing
- Electromagnetic door lock
- Limit unit in the dryer space ensuring that the drying temperature is not exceeded by more than 10 % (set by the customer)
- System for checking the minimum suction speed
- System for checking the function of the circulating fan
- Increasing the furnace performance to maintain the thermal dynamics of the dryer while removing released substances

SVK bogie-hearth dryers

up to 250/450 °C

SVK bogie-hearth chamber dryers & ovens are suitable for convenient loading of bulky and heavy charges. Whether using a crane or by some other method. They excel in the long service life of their chambers, which are resistant to corrosion and mechanical stress. They are useful not only for drying, tempering, and artificial ageing, but also for heat treatment of a variety of materials at lower temperatures. Thanks to the horizontal internal atmosphere circulation, SVK dryers also boast an even temperature distribution.

Mechanical durability

Chemical durability

Uniform temperature distribution

SVK 2000



STANDARD DRYER EQUIPMENT:

- Manually driven bogie
- Ht205 controller (30 programmes with 15 steps each)
- Resistance heating (heating elements in the central heating unit)
- Insulation of mineral fiber mats
- Limit unit
- Manually controlled ventilation and suction flap
- "K" type thermocouple
- Contactless switching relay for noise-free operation
- Door limit switch for the safe opening of the dryer
- Manual door opening to the left on C-type hinges
- Rails with length equal to 2,5 times the furnace length, designed for on-floor installation
- Ammeters to check the condition of heating elements
- Switchboard on side of the dryer



Simple operation and installation



Atypical modifications



Shipment from 8 weeks



Warranty 24 months

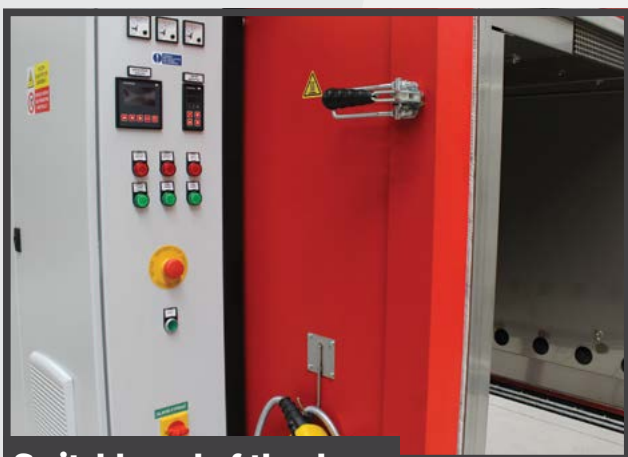


Instant technical support

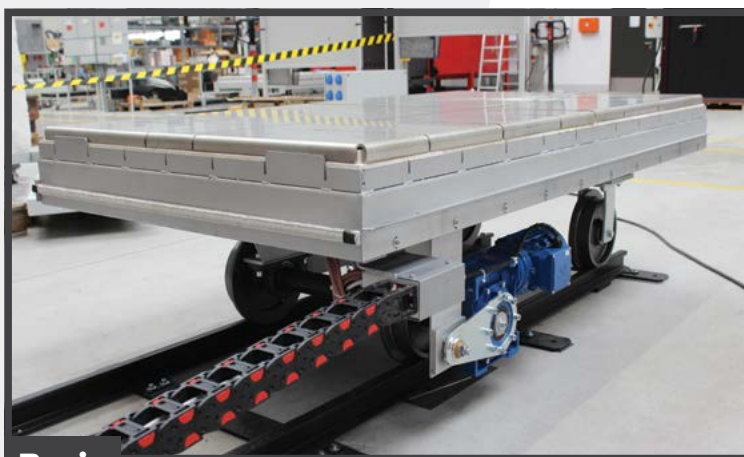
RECOMMENDED ACCESSORIES:

- Ht200 controller (30 programmes with 25 steps, USB interface)
- Automatic ventilation and suction flap for cooling the dryer's operational space
- Exhaust fan for drawing of flue gases
- Controlled underpressure forced cooling
- METREX gas analyzer
- Electrically drive bogie
- Door opening upwards (electrohydraulic)
- Power consumption monitoring with visual output
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 10 °C (applies for dryers capacity up to 6000 l)
- HtMonit EV set (include software + interface)

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



Switchboard of the dryer



Bogie

Type	Tmax	Recommended operating temp. range	Volume	External dimensions** (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Voltage	Protection*	Max. load capacity
	°C	°C	l	mm	mm	kW	kg	V	A	kg
SVK 1000/25	250	100-250	1020	1600×2400×1650	900×900×1260	27	1200	400	63/3	1000
SVK 1500/25	250	100-250	1500	1800×2500×1900	1000×1000×1500	45	1400	400	100/3	2000
SVK 2000/25	250	100-250	2000	1800×2500×2400	1000×1000×2000	54	1500	400	125/3	3000
SVK 3600/25	250	100-250	3600	2100×2900×2900	1200×1200×2500	63	1800	400	160/3	4000
SVK 4500/25	250	100-250	4330	2100×2900×3400	1200×1200×3000	72	1900	400	160/3	5000
SVK 7200/25	250	100-250	7200	2400×3600×3400	1500×1600×3000	84	2800	400	200/3	6500
SVK 1000/45	450	100-450	1020	1600×2400×1650	900×900×1260	40,5	1250	400	100/3	1000
SVK 1500/45	450	100-450	1500	1800×2500×1900	1000×1000×1500	49,5	1450	400	100/3	2000
SVK 2000/45	450	100-450	2000	1800×2500×2400	1000×1000×2000	66	1550	400	160/3	3000
SVK 3600/45	450	100-450	3600	2100×2900×2900	1200×1200×2500	78	1850	400	160/3	4000
SVK 4500/45	450	100-450	4300	2100×2900×3400	1200×1200×3000	84	1950	400	200/3	5000
SVK 7200/45	450	100-450	7200	2400×3600×3400	1500×1600×3000	96	2850	400	250/3	6500

* For currents higher than 250 A, circuit breakers 400 A and 630 A with tripping current can be used. Protection may vary depending on the accessory option.

** External dimensions are without switchboard.

KNC/H, KNC/V chamber furnaces with forced air circulation

up to 650/850 °C

The KNC/H chamber furnaces with forced air circulation and horizontal charging is used for all types of heat treatment (tempering, artificial ageing, preheating, hot connecting, charge testing, drying out, etc.) under normal atmosphere, where demand exists for very precise temperature distribution and a dynamic course to the temperature curve. In KNC/V furnaces, the charge is placed vertically.

Precision furnace control

Uniform temperature distribution

Robustness

KNC/H 1500



STANDARD FURNACE EQUIPMENT:

- Ht205 controller
(30 programmes with 15 steps each)
- Resistance heating (meanders on the furnace sides)
- "K" type thermocouple
- Door limit switch for the safe opening of the furnace
- Limit unit
- Electrohydraulic door opening towards the top



Simple operation and installation



Atypical modifications



Shipment from 10 weeks



Warranty 24 months



Instant technical support

RECOMMENDED ACCESSORIES:

- Ht200 controller (30 programmes with 25 steps, USB interface)
- Automatic or manually controlled ventilation and suction flap
- Controlled overpressure forced cooling
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 10 °C
- Ammeters to check the condition of heating elements
- Power consumption monitoring with visual output
- HtMonit EV set (include interface + software)

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



KNC/H 1500 – manually opened door



KNC/H 2000 with hardening bath

Type	Tmax	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Protection*	Voltage	Max. load capacity
	°C	°C	l	mm	mm	kW	kg	A	V	kg
KNC/H 1000/65	650	300-600	1000	2300×3200×2200	1000×1000×1000	36	1400	80/3	400	800
KNC/H 1500/65	650	300-600	1500	2800×3200×2400	1500×1000×1000	48	1600	100/3	400	1000
KNC/H 2000/65	650	300-600	2000	3300×3200×2200	2000×1000×1000	72	1900	160/3	400	1500
KNC/H 1000/85	850	300-800	1000	2300×3200×2200	1000×1000×1000	42	1500	80/3	400	800
KNC/H 1500/85	850	300-800	1500	2800×3300×2400	1500×1000×1000	54	1500	100/3	400	1000
KNC/H 2000/85	850	300-800	2000	3500×3300×2200	2000×1000×1000	80	2000	160/3	400	1500

* Protection may vary depending on the accessory option.

Komorové pece s nuceným oběhem vnitřní atmosféry vyrábíme také ve variantě s vertikálním zakládáním vsázky jako pece KNC/V.

Type	Tmax	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Protection*	Voltage	Max. load capacity
	°C	°C	l	mm	mm	kW	kg	A	V	kg
KNC/V 270/65	650	300-600	270	1600×1250×2500	700×650×600	18	800	50/3	400	400
KNC/V 540/65	650	300-600	540	1800×1350×2900	900×750×800	24	1100	80/3	400	600
KNC/V 1000/65	650	300-600	1000	2350×1600×2900	1000×1000×1000	36	1300	80/3	400	800
KNC/V 1500/65	650	300-600	1500	2850×1600×2900	1500×1000×1000	60	1400	125/3	400	1000
KNC/V 2000/65	650	300-600	2000	3200×1500×2350	2000×1000×1000	75	1700	160/3	400	1500
KNC/V 270/85	850	300-800	270	1600×1250×2500	700×650×600	24	800	80/3	400	400
KNC/V 540/85	850	300-800	540	1800×1350×2900	900×750×800	36	1100	100/3	400	600
KNC/V 1000/85	850	300-800	1000	2350×1600×2900	1000×1000×1000	48	1300	100/3	400	800
KNC/V 1500/85	850	300-800	1500	2850×1600×2900	1500×1000×1000	64	1400	125/3	400	1000
KNC/V 2000/85	850	300-800	2000	3200×1500×2350	2000×1000×1000	90	1700	160/3	400	1500

* Jištění se může lišit dle zvoleného příslušenství za příplatek.

VKNC bogie-hearth chamber furnaces with forced air circulation

up to 650/850 °C

In VKNC furnaces, the charge is loaded onto the bogie, which is then driven into the furnace. The door closing mechanism ensures excellently tight door sealing; combined with the high-quality insulation material, this brings lower furnace operating costs. The even heat distribution ensures forced internal atmosphere circulation, and you can easily control the whole heat treatment process thanks to a programmable PID controller.

Precision furnace control

Uniform temperature distribution

Robustness

STANDARD FURNACE EQUIPMENT:

- Ht205 controller (30 programmes with 15 steps each)
- Resistance heating (meanders on the furnace sides)
- Air circulation
- Limit unit
- Door manually opened to the left placed on the "C" hinge
- "K" type thermocouple
- Contactless switching relay for noise-free operation
- Manually operated ventilation flap
- Manually driven bogie
- A rail of about 2,5 times the depth of the furnace on the floor
- Switchboard on the side of the furnace

VKNC 1500



Simple operation and installation



Atypical modifications



Shipment from 12 weeks



Reduction of emissions



Energy saving



Warranty 24 months



Instant technical support

RECOMMENDED ACCESSORIES:

- Ht200 controller (30 programmes with 25 steps, USB interface)
- Automatic ventilation flap
- Controlled overpressure forced cooling
- Electric bogie drive
- Door opening upwards (electrohydraulic)
- Ammeters to check the condition of heating elements
- Power consumption monitoring with visual output
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 10 °C
- HtMonit set EV (include interface + software)

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



Automatic ventilation flap



Door opening (electrohydraulic)

Type	Tmax	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Protection*	Heating power	Voltage	Weight	Max. load capacity
	°C	°C	l	mm	mm	A	kW	V	kg	kg
VKNC 1000/65	650	300-600	1000	2200×3400×1800	900×900×1260	80/3	42	400	1450	1000
VKNC 1500/65	650	300-600	1500	2300×3500×2100	1000×1000×1500	100/3	54	400	1600	1500
VKNC 2000/65	650	300-600	2000	2300×3500×2600	1000×1000×2000	125/3	74	400	1950	2000
VKNC 3600/65	650	300-600	3600	2500×3700×3100	1200×1200×2500	160/3	87	400	2400	3000
VKNC 5500/65	650	300-600	5240	2600×3900×3700	1300×1300×3100	200/3	95	400	4800	3500
VKNC 7200/65	650	300-600	7200	2800×4500×3800	1500×1600×3000	200/3	110	400	5500	4000
VKNC 1000/85	850	300-800	1000	2200×3400×1800	900×900×1260	80/3	45	400	1500	1000
VKNC 1500/85	850	300-800	1500	2300×3500×2100	1000×1000×1500	120/3	60	400	1650	1500
VKNC 2000/85	850	300-800	2000	2300×3500×2600	1000×1000×2000	160/3	80	400	2100	2000
VKNC 3600/85	850	300-800	3600	2500×3700×3100	1200×1200×2500	200/3	95	400	2550	3000
VKNC 5500/85	850	300-800	5240	2600×3900×3700	1300×1300×3100	250/3	150	400	4950	3500
VKNC 7200/85	850	300-800	7200	2800×4500×3800	1500×1600×3000	315/3	160	400	5600	4000

* Protection may vary depending on the accessory option.

VKT bogie-hearth furnaces

up to 900/1260 °C

Thanks to its sturdy construction, this chamber furnace holds up in even the heaviest operations. The charge is loaded onto the furnace bogie, which is then driven into the furnace. They are used for different kinds of heat treatment of the charge at temperatures from 900 °C to 1260 °C.

Precision furnace control

Easy chargingy

Robustness

STANDARD FURNACE EQUIPMENT:

- Ht205 controller (30 programs in 15 steps)
- Resistance heating (meanders on the sides and spirals in the car)
- 5 sides heating (4 walls and car)
- Limit unit
- Switchboard on the side of the furnace (VKT 800 – VKT 3000), larger models have separately standing switchboard
- Manually driven bogie
- Hand-operated left-hand door mounted on "C" hinge
- Manually operated ventilation flap
- "S" type thermocouple
- Rails 2,5 times the floor depth of the furnace
- Contactless switching relay for noise-free operation

VKT 2000



Simple operation
and installation



Atypical
modifications



Shipment from
10 weeks



Warranty
24 months

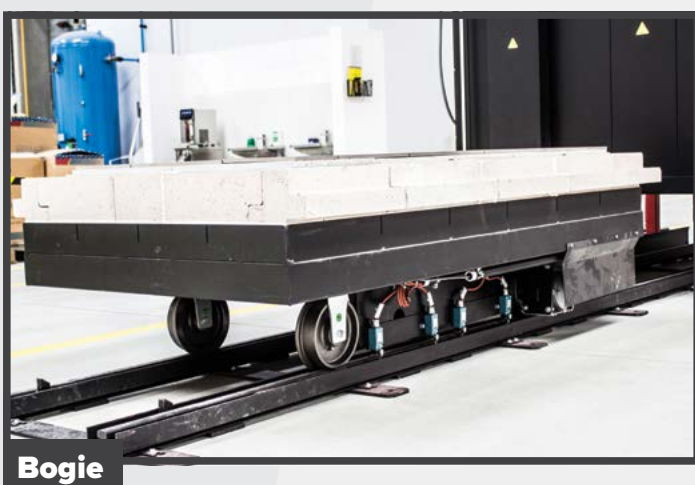


Instant
technical support

RECOMMENDED ACCESSORIES:

- Ht200 controller (30 programs in 25 steps, USB interface)
- Automatic ventilation flap
- Controlled overpressure forced cooling
- Electric bogie drive
- Door opening upwards (electrohydraulic)
- Ammeters to check the condition of the heating elements
- Power consumption monitoring with visual output
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 20 °C
- HtMonit EV set (include interface + software)
- Metal plates on the work surface (only up to 1000 °C)

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



Bogie



Resistance heating – meandres

Type	Tmax**	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Protection*	Voltage	Max. load capacity
	°C	°C	l	mm	mm	kW	kg	A	V	kg
VKT 800/09	900	700-900	800	2350×2650×2500	900×600×1500	32	2100	63/3	400	2000
VKT 1000/09	900	700-900	1000	2350×2650×3050	900×600×2000	40	2300	80/3	400	2000
VKT 1500/09	900	700-900	1500	2450×2500×3500	1000×600×2500	60	2550	100/3	400	3500
VKT 2000/09	900	700-900	2000	2250×3100×3500	1000×800×2500	80	2800	160/3	400	3500
VKT 3000/09	900	700-900	3000	2650×3250×4000	1000×1000×3000	110	3500	200/3	400	4500
VKT 5000/09	900	700-900	5000	2700×4500×4050	1200×1400×3000	130	4200	250/3	400	5000
VKT 7000/09	900	700-900	6700	2700×4500×5050	1200×1400×4000	150	4900	250/3	400	8000
VKT 800/12	1260	700-1200	800	2350×2650×2500	900×600×1500	40	2100	80/3	400	2000
VKT 1000/12	1260	700-1200	1000	2350×2650×3050	900×600×2000	60	2300	100/3	400	2000
VKT 1500/12	1260	700-1200	1500	2450×2500×3500	1000×600×2500	80	2550	160/3	400	3500
VKT 2000/12	1260	700-1200	2000	2250×3100×3500	1000×800×2500	110	2800	200/3	400	3500
VKT 3000/12	1260	700-1200	3000	2650×3250×4000	1000×1000×3000	120	3600	250/3	400	4500
VKT 5000/12	1260	700-1200	5000	2700×4500×4050	1200×1400×3000	180	4300	400/3	400	5000
VKT 7000/12	1260	700-1200	6700	2700×4500×5050	1200×1400×4000	250	5000	630/3	400	8000

* Protection may vary depending on the accessory option.

** Tmax is the maximum temperature at which the furnace cannot be operated for a long time.

PP tempering chamber furnaces

up to 650/850 °C

Uniform heating of the charge thanks to horizontal internal atmosphere circulation – this is the greatest advantage of the tempering furnaces. The precision of the temperature distribution, its guided increase and decrease and controlled cooling will, when used together, give you complete control over the process taking place within the furnace's chamber. PP furnaces are regularly used in industry, and so they are truly robust and sturdy, and the smaller volume furnaces are also very compact and space-saving.

Mechanical durability

Chemical durability

Many variations



PP 540

PP 20

PP 70

STANDARD FURNACE EQUIPMENT:

- Ht205 controller (30 programmes with 15 steps each)
- Resistance heating (heating elements or spirals)
- Stainless steel refractory muffle
- 2 stainless steel or refractory shelves (except for the PP 20)
- Manually controlled ventilation flap for cooling the furnace's operational space
- "K" type thermocouple
- Contactless switching relay for noise-free operation
- Limit switch for safe opening of the furnace
- Door manually opening towards the right-hand side
- Stand (except for the PP 20 table version)



Simple operation
and installation



Atypical
modifications



Shipment from
6 weeks



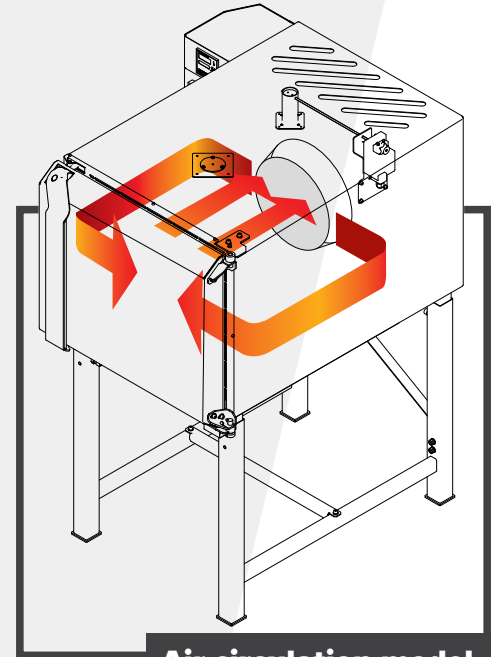
Warranty
24 months



Instant
technical support

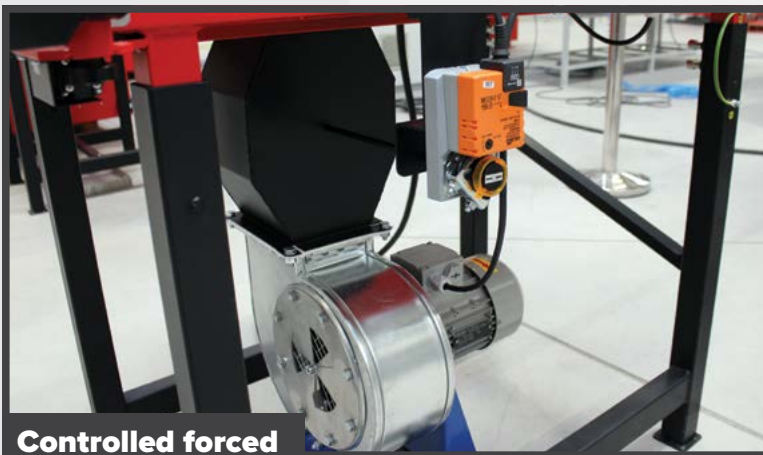
RECOMMENDED ACCESSORIES:

- Ht200 controller (30 programs in 25 steps, USB interface)
- Protective atmosphere supply
- Container for heat treatment in protective atmosphere
- Semi-gastight furnace design (cannot be combined with the automatic ventilation flap)
- Automatic ventilation flap
- Controlled overpressure forced cooling
- Door opening upwards (manual or pneumatic)
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 10 °C
- HtMonit EV set (include interface + software)



Air circulation model

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



Controlled forced pressure cooling



Shelves

Type	Tmax**	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Shelf	Heating power***	Weight	Protection*	Voltage	Max. load capacity of shelves	Max. load capacity of bottom
	°C	°C	l	mm	mm	ks	kW	kg	A	V	kg	kg
PP 20/65	650	200-600	20	800×650×1000	300×200×350	-	3	130	16/1	230	-	30
PP 40/65	650	200-600	35	850×1450×1050	300×300×400	2	6	180	16/3	400	15	50
PP 70/65	650	200-600	70	850×1550×1150	350×400×500	2	8	200	20/3	400	25	80
PP 140/65	650	200-600	135	950×1650×1250	450×500×600	2	12	250	25/3	400	40	150
PP 270/65	650	200-600	270	1200×1750×1450	600×600×750	2	20	580	40/3	400	75	240
PP 540/65	650	200-600	540	1300×1950×1750	750×800×900	2	24	850	50/3	400	100	500
PP 750/65	650	200-600	750	1300×1950×2100	750×800×1250	2	36	1000	63/3	400	100	500
PP 20/85	850	300-800	20	850×700×1050	300×200×350	-	3	140	16/1	230	-	30
PP 40/85	850	300-800	35	850×1450×1050	300×300×400	2	7	200	20/3	400	15	50
PP 70/85	850	300-800	70	900×1550×1150	350×400×500	2	9	250	20/3	400	25	80
PP 140/85	850	300-800	135	1000×1650×1250	450×500×600	2	14	350	25/3	400	40	150
PP 270/85	850	300-800	270	1200×1750×1650	600×600×750	2	20	580	40/3	400	75	240
PP 540/85	850	300-800	540	1350×1950×1800	750×800×900	2	30	850	50/3	400	100	500
PP 750/85	850	300-800	750	1350×1950×2100	750×800×1250	2	40	1000	80/3	400	100	500

* Protection may vary depending on the accessory option.

** Tmax is the maximum temperature at which the furnace cannot be operated for a long period of time.

*** The power input for the fan motor in the PP 20 models is 0,25 kW. For the PP 40 – PP 140 models and PP 270/65, it is 0,37 kW. For the PP 270/85 and PP 540 – PP 750 models, it is 1,1 kW.

PK hardening chamber furnaces

up to 1280 °C

PK chamber furnaces are very durable facilities for hardening, annealing, or preheating metal charges before forging under an oxidising atmosphere. Heating from three sides, meanwhile, is a guarantee for even heat distribution within the operating area. At your request, we also manufacture these furnaces in a semi-gastight version with a working tub, so that you can also use them for the heat treatment of a charge under a partially protective atmosphere.

Industrial robustness

Silent operation

Mechanical durability



PK 55



PK 130

STANDARD FURNACE EQUIPMENT:

- Ht205 controller (30 programmes with 15 steps each)
- Heating spirals made of resistor wire
- Ventilation chimney
- Rotary table for charge located on the right for PK 105/12 through PK 540/12 furnaces
- "S" type thermocouple
- Contactless switching relay for noise-free operation
- Limit switch on door
- Limit unit
- Manually controlled door (PK 55 through PK 540)
- Electro-hydraulic door opening towards the top (PK 680 through PK 1400)
- Stand
- PK 55 – PK 540 come without a switchboard, with the electrical installation located in the rear portion of the furnace
- PK 680 – PK 1400 have electrical installation elements located on a switchboard on the right side



Simple operation
and installation



Atypical
modifications



Shipment from
6 weeks



Warranty
24 months

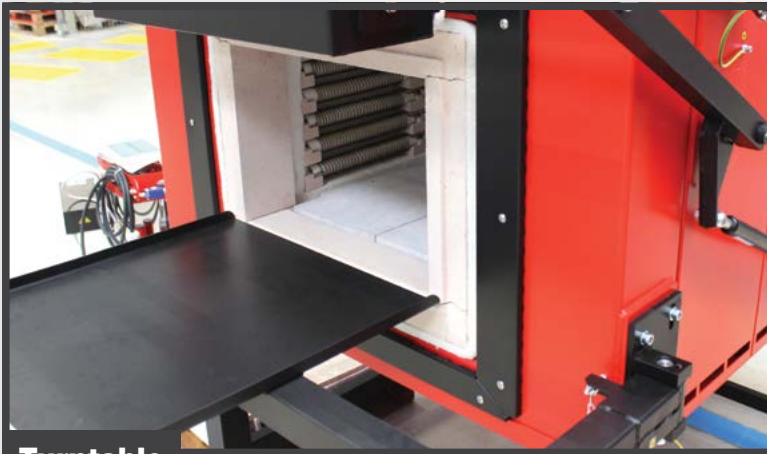


Instant
technical support

RECOMMENDED ACCESSORIES:

- Ht200 controller (30 programs in 25 steps, USB interface)
- Protective atmosphere supply
- Container for heat treatment in protective atmosphere
- Semi-gastight furnace design (PK 55 – PK 350)
- Controlled overpressure forced cooling (this cannot be combined with the semi-gastight version)
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 20 °C
- HtMonit EV set (include interface + software)
- Metal plate for the bottom (only up to temperatures of 1000 °C)
- Set of SiC side covering plates

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



Turntable



PK 1000

Type	Tmax**	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Heating power	Protection**	Weight	Voltage	Max. load capacity of bottom	Max. load capacity of folding table
	°C	°C	l	mm	mm	kW	A	kg	V	kg	kg
PK 55/12	1280	700-1200	55	1350×1450×1750	400×250×550	13	25/3	450	400	150	-
PK 105/12	1280	700-1200	105	*1450×1550×1850	500×350×600	21	40/3	660	400	150	50
PK 130/12	1280	700-1200	130	*1450×1550×2000	500×350×750	21	40/3	750	400	200	50
PK 180/12	1280	700-1200	180	*1500×1550×2000	550×400×800	29	50/3	830	400	200	50
PK 225/12	1280	700-1200	225	*1550×1700×1950	600×530×750	29	50/3	920	400	250	50
PK 350/12	1280	700-1200	350	*1650×1700×2300	700×530×1100	50	80/3	1100	400	300	50
PK 540/12	1280	700-1200	540	*1550×1900×2650	600×600×1500	50	80/3	1540	400	350	50
PK 680/12	1280	700-1200	680	2285×2790×2670	900×500×1500	70	125/3	1620	400	400	-
PK 1000/12	1280	700-1200	1000	2300×2850×2900	900×700×1800	70	125/3	1980	400	500	-
PK 1400/12	1280	700-1200	1400	2500×2850×3300	1100×600×2100	95	160/3	2500	400	800	-

* Furnace dimensions without manipulation turntable.

** Protection may vary depending on the accessory option.

*** Tmax is the maximum temperature at which the furnace cannot be operated for a long period of time.

PKE hardening chamber furnaces

up to 1280 °C

These furnaces are smaller versions of the PK furnaces. They are designed with the durability of the internal lining, even in these smaller furnaces. Although heat accumulation in the lining is somewhat inferior to that in the PK, the PKE furnaces are, on the other hand, quicker to heat up, which you will especially appreciate if they are only used occasionally. We recommend these primarily for relatively small charges that are handled manually.

Industrial robustness

Silent operation

Economic variant

PKE 45



STANDARD FURNACE EQUIPMENT:

- Ht40P controller (10 programmes with 15 steps each)
- Heating elements on the sides in ceramic panels
- Heating element at the bottom of the furnace in ceramic panels covered with a ceramic refractory plate
- Ventilation chimney for venting the furnace's operational space
- "S" type thermocouple
- The PKE 12/12 through the PKE 18/12 are designed for 230 V
- The PKE 18/12R through the PKE 90/12 are designed for 400 V
- Door opening manually downwards
- Switching relay
- Door limit switch for the safe opening of the furnace
- Tabletop (PKE 12 and PKE 18) or standalone option with a stand (height of loading edge 900 mm)



Simple operation
and installation



Atypical
modifications



Shipment from
5 weeks



Warranty
24 months



Instant
technical support

RECOMMENDED ACCESSORIES:

- Ht205 controller (30 programmes with 15 steps)
- Protective atmosphere supply (cannot be produced in the semi-gastight option)
- Container for heat treatment in protective atmosphere
- Controlled overpressure forced cooling (only with the HT 205 controller, only for furnaces PKE 25 and PKE 45, can not be combined with hardening table)
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 20 °C
- HtMonit EV set (include interface + software)
- Metal plate for the bottom (only up to temperatures of 1000 °C)

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



Controller



Furnace chamber

Type	Tmax***	Recommended operating temp. range	Volume	External dimensions (w×h×d)	Internal dimensions (w×h×d)	Heating power	Weight	Protection**	Voltage	Max. load capacity of bottom
	°C	°C	l	mm	mm	kW	kg	A	V	kg
PKE 12/12	1280	700-1200	12,2	700×650×850	250×200×250	3	95	230	16/1	20
PKE 18/12	1280	700-1200	17,5	700×650×900	250×200×350	3,5	101	230	16/1	30
PKE 18/12R	1280	700-1200	17,5	700×650×900	250×200×350	5,5	101	400	16/3	30
PKE 25/12	1280	700-1200	25	700×1300×1100	250×200×500	7	132	400	16/3	50
PKE 45/12	1280	700-1200	44	800×1350×1100	350×250×500	13	160	400	25/3	100
PKE 65/12	1280	700-1200	65	800×1350×1300	350×250×750	16	195	400	32/3	130
PKE 90/12	1280	700-1200	87	800×1350×1550	350×250×1000	18	225	400	32/3	150

* Height of furnace with stand.

** Protection may vary depending on the accessory option.

*** Tmax is the maximum temperature at which the furnace cannot be operated for a long period of time.

PKRC, PKR gastight chamber furnaces

up to 950 °C

Gastight chamber furnaces with retort (PKR) and gastight chamber furnaces with retort and circulation of internal atmosphere (PKRC) are used especially for heat treatment of materials in the defined protective atmosphere (argon, nitrogen, moulding gas) with low consumption of protective gas. The technologies include especially annealing, tempering, curing, or internal stress relieving.

Gas-tight design

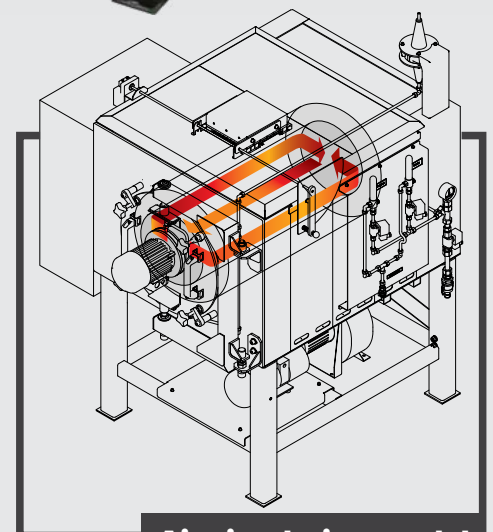
Chemical durability

Mechanical durability

PKRC 55

STANDARD FURNACE EQUIPMENT:

- Retort
- Ht205 controller (30 programs of 15 steps each)
- Heating coils wound on ceramic tubes outside the working area of the furnace
- Manually controlled ventilation and suction flaps for cooling outside of the retort
- Manual door opening to the side, limit end-switch for safe opening of the furnace
- Door sealing door sealing with water cooling
- Automatically controlled protective atmosphere inlet for one gas type (without vacuum pump)
- Shelf in retort
- Limit unit
- Vacuum pressure gauge for vacuum control in the retort
- Vacuum pump connection inlet
- Thermistor for temperature control flange, signalling the presence of coolant in the retort collar
- Overpressure valve at the retort gas input point with pressure 4-6 mbar
- Ammeters to check the condition of heating elements
- "K" type thermocouple
- Contactless switching relay for noise-free operation



Air circulation model



Simple operation and installation



Atypical modifications



Shipment from 10 weeks



Warranty 24 months

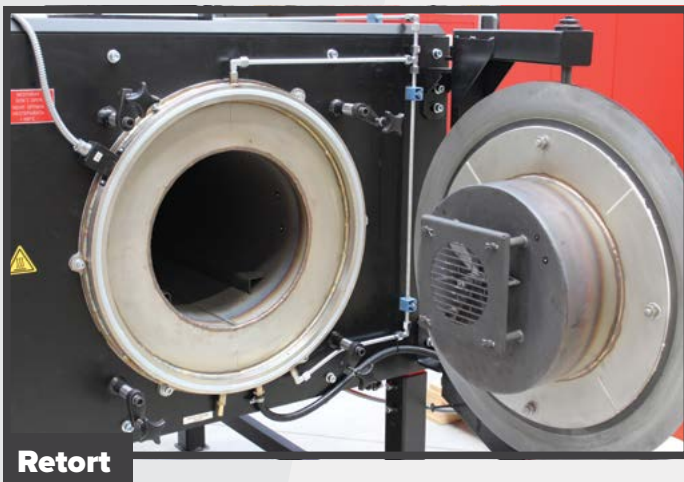


Instant technical support

RECOMMENDED ACCESSORIES:

- Retort made of type Inconel material and cast-iron propeller for long-term operation up to 1000 °C
- Ht200 controller (30 programs in 25 steps, USB interface)
- Vacuum pump for extraction of the atmosphere + necessary controlled forced cooling
- Controlled overpressure forced cooling (according to input cooling curve)
- Power consumption monitoring with visual output
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 20 °C
- HtMonit EV set (include interface + software)

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



Retort



Automatically controlled protective atmosphere inlet

Type	Tmax***	Recommended operating temp. range	Volume	Inside dimensions of retort (øD×d×h)	External dimensions (w×h×d)	Heating power	Protection*	Weight	Voltage	Max. load capacity of bottom
	°C	°C	l	mm	mm	kW	A	kg	V	kg
PKRC 55/95	950	700-900**	24	267×410×198	1400×1830×1450	13	25/3	600	400	150
PKRC 130/95	950	700-900**	69	372×635×303	1635×1930×1670	21	40/3	980	400	200
PKRC 180/95	950	700-900**	83	412×635×338	1700×1960×1670	29	50/3	1100	400	200
PKRC 350/95	950	700-900**	225	544×895×447	1915×2080×2005	50	80/3	1380	400	300

* Protection may vary according to the optional accessories selected.

** In case of using retort made of type Inconel material and cast-iron propeller up to 1000 °C.

*** In case of using retort made of type Inconel material and cast-iron propeller up to 1100 °C. Tmax is the maximum temperature which can be attained by the furnace, but is not suitable for long-term operation.

We also produce gas-tight chamber furnaces with retort in a variant without without circulation of the inner atmosphere as a PKR furnaces.

Type	Tmax**	Recommended operating temp. range	Volume	Inside dimensions of retort (øD×d×h)	External dimensions (w×h×d)	Heating power	Protection*	Weight	Voltage	Max. load capacity of bottom
	°C	°C	l	mm	mm	kW	A	kg	V	kg
PKR 55/95	950	700-900**	30	267×490×198	1400×1830×1290	13	25/3	570	400	150
PKR 130/95	950	700-900**	75	372×715×303	1640×1930×1520	21	40/3	950	400	200
PKR 180/95	950	700-900**	110	412×715×338	1700×1960×1520	29	50/3	1050	400	200
PKR 350/95	950	700-900**	230	544×975×447	1915×2080×1855	50	80/3	1350	400	300

* Protection may vary according to the optional accessories selected.

** In case of using retort made of type Inconel material up to 1000 °C.

*** In case of using retort made of type Inconel material up to 1100 °C. Tmax is the maximum temperature which can be attained by the furnace, but is not suitable for long-term operation.

SRC, SC shaft furnaces with forced air circulation

up to 850/950 °C

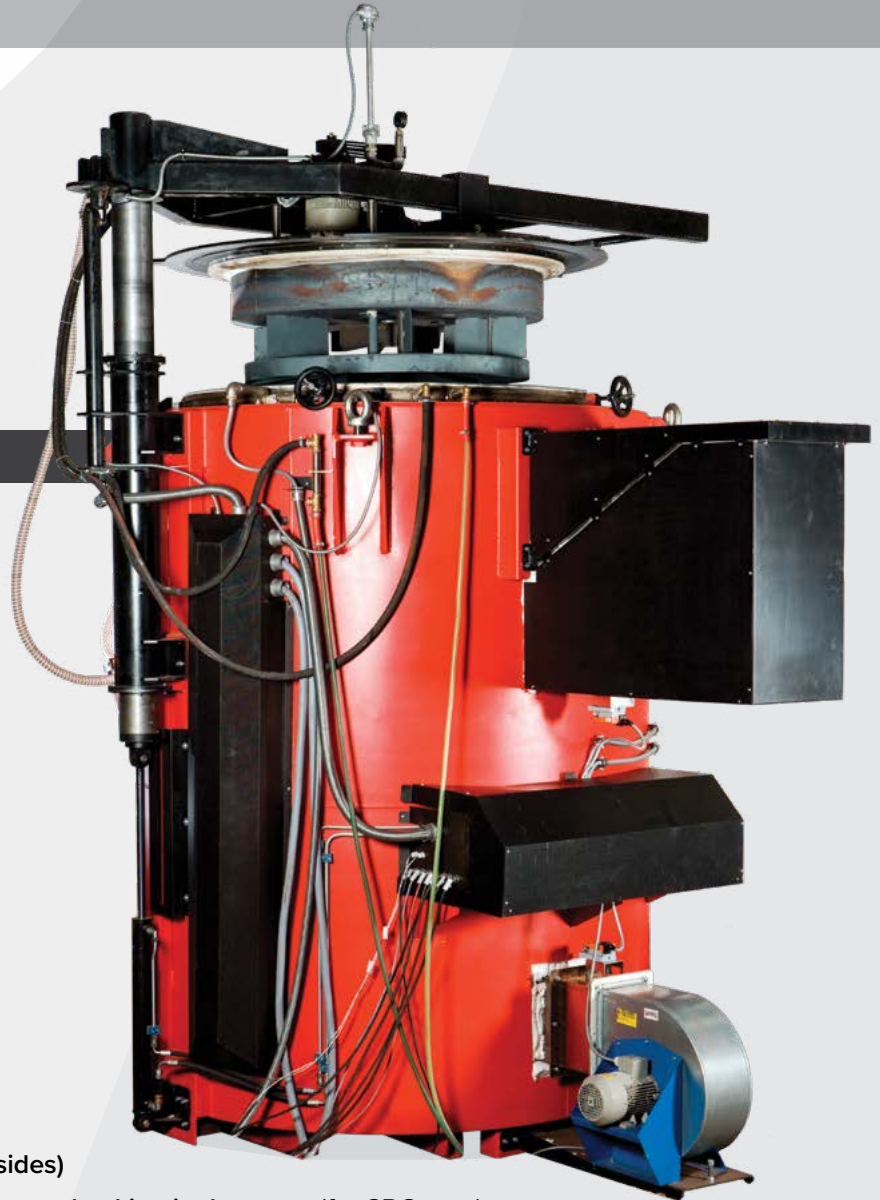
These shaft furnaces with forced air circulation are primarily used for heat treatment of large and heavy charges, where a crane must be used for loading the charge into the furnace. Compared to SC, shaft furnaces of the SRC type are gas-tight and additionally equipped with a retort. They are intended for heat treatment in a predefined protective atmosphere (argon, nitrogen, forming gas) and excel in low consumption of protective gas.

Gas-tight design

Uniform temperature
distribution

Low consumption
of protective gas

SRC 1700



STANDARD FURNACE EQUIPMENT:

- Retort (for SRC type)
- Electro-hydraulically lifting lid
- Ht205 controller
(30 programmes with 15 steps each)
- Limit unit
- Resistance heating (meanders on the sides)
- Standard pressure gauge for overpressure checking in the retort (for SRC type)
- Ammeters to check the condition of heating elements
- Automatically controlled protective atmosphere inlet for one type of gas (without vacuum pump) for SRC type
- "K" type thermocouple



Simple operation
and installation



Atypical
modifications



Shipment from
12 weeks



Warranty
24 months



Instant
technical support

RECOMMENDED ACCESSORIES:

- Retort made of type Inconel material and cast-iron propeller for long-term operation up to 1000 °C (for SRC type)
- Ht200 controller (30 programs in 25 steps, USB interface)
- Automatic supply of protective atmosphere for 1 type of gas (for SRC type with vacuum pump)
- Controlled overpressure forced cooling
- Power consumption monitoring with visual output
- Optimisation of the temperature field for compliance with DIN 17052-1 ΔT 15 °C
- HtMonit EV set (include interface + software)
- Customization to nitriding furnace (for SRC type)

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



Electro-hydraulically lifting lid



SC 800

Type	Tmax***	Recommended operating temp. range**	Volume	Internal dimensions (øD×h)	External dimensions (w×h×d)	Heating power	Protection*	Weight	Max. retort load	Voltage
	°C	°C	l	mm	mm	kW	A	kg	kg	V
SRC 500/95	950	600-900	500	800×1000	2100×2900×2300	50	100/3	2500	350	400
SRC 800/95	950	600-900	800	1000×1000	2350×2900×2300	70	125/3	3200	450	400
SRC 1000/95	950	600-900	1000	1000×1300	2350×3150×2600	90	160/3	3600	600	400
SRC 1700/95	950	600-900	1700	1200×1500	2500×3500×2800	120	250/3	5000	1000	400

* Protection may vary according to the optional accessories selected.

** In case of using retort made of type Inconel material and cast-iron propeller up to 1050 °C.

*** In case of using retort made of type Inconel material and cast-iron propeller up to 1100 °C. Tmax is the maximum temperature which can be attained by the furnace, but is not suitable for long-term operation.

We also produce shaft furnaces with forced air circulation in a version without the retort as an SC furnaces.

Type	Tmax**	Recommended operating temp. range	Volume	Internal dimensions (øD×h)	External dimensions (w×h×d)	Heating power	Protection*	Weight	Max. retort load	Voltage
	°C	°C	l	mm	mm	kW	A	kg	Kg	V
SC 500/85	850	300-800	500	800×1000	1700×2450×1900	50	100/3	1500	350	400
SC 800/85	850	300-800	800	1000×1000	1900×2450×2100	70	125/3	1800	450	400
SC 1000/85	850	300-800	1000	1000×1300	1900×2750×2100	90	160/3	2100	600	400
SC 1700/85	850	300-800	1500	1200×1300	2100×2750×2300	120	250/3	2500	1000	400
SC 2300/65	650	300-600	2300	1200×2000	2100×3300×2400	120	200/3	3200	1000	400

* Protection may vary according to the optional accessories selected.

** Tmax is the maximum temperature at which the furnace cannot be operated for a long time.

SKM, SKV hardening operation centre / hardening workplace

The hardening workplace small (SKM) or large (SKV) can be used for preheating, hardening in an oil bath or in water, tempering a various charges, cementing in powder, artificial ageing. You can equip them with preferred tempering and hardening furnace.

Industrial robustness

Great variability

Comprehensive solution

STANDARD TABLE EQUIPMENT:

- Hardening tub for water (200 l)
- Hardening tub for oil (200 l)
- Hardening manipulation basket
- Fan for air hardening

RECOMMENDED ACCESSORIES:

- Spare hardening manipulation basket
- Fire clay-shaped blocks around the hardening grate
- Thermostat-controlled heating of the hardening medium



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

Type	Fan output	External dimensions (w×h×d)	Tub dimensions (w×h×d)	Grate dimensions (w×d)	Heating power	Weight	Voltage
	W	mm	mm	mm	kW	kg	V
SKM	180	1855*×950×750	200×550×550	350×350	3	200 kg	230
SKV	370	2900*×950×1200	300×700×1000	600×600	6	450 kg	400

* With two tubs on the sides.

SKM, SKV furnaces for fitting

	Hardening	Tempering
SKM	PKE 12/12, PKE 18/12, PKE 18/12 (R), L, LH	PP 20/45, PP 20/65
SKV	PKE 12/12 – PKE 90/12, PK 55/12	PP 20/45, PP 20/65



Simple operation and installation



Atypical modifications



Shipment from 5 weeks



Warranty 24 months



Instant technical support

KK hardening container

The hardening container is used for quick cooling in heat treatment of small metallic charges up to 30 kg. Thanks to the charge grate, you can to manipulate the charge easily and conveniently.

Industrial robustness

Easy load handling

Easy to move

KK 250



STANDARD CONTAINER EQUIPMENT:

- System for hardening medium; oil
(structural steel internal bath and structural steel grate)
- Pneumatic grate
- Circulation/mixing of hardening medium
- Castors

RECOMMENDED ACCESSORIES:

- Hardening medium heating (3 kW)
- Hardening medium cooling
- System for hardening medium; water
(structural steel internal bath and structural steel grate)

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

Type	Volume	External dimensions (w×h×d)	Grate dimensions (w×d)	Max. grid capacity	Weight	Heating power	Voltage
	l	mm	mm	kg	kg	kW	V
KK/250 (oil)	300	1150×1830×1150	600×700	30	350*	3	400
KK/250 (water)	300	1150×1830×1150	600×700	30	350*	3	400

* With two tubs on the sides.



Simple operation and installation



Atypical modifications



Shipment from 5 weeks



Warranty 24 months



Instant technical support

KLO oil or KLV water hardening bath

Hardening baths are designed for heavy duty operations. Thanks to the charge grate, you can manipulate the charge easily and conveniently. Hardening baths are used for quick cooling during heat treatment of metal charges. It sees regular use, for instance when hardening in water, polymer, or oil.

Industrial robustness

Easy manipulation of the charge

Intensive heat removal from the charge

KLO 2400



STANDARD BATH EQUIPMENT:

- Variants for oil hardening medium (KLO) and water hardening medium (KLV)
- Electrically controlled grate
- Mixing of hardening medium

RECOMMENDED ACCESSORIES:

- Cooling of hardening medium
- Heating of hardening medium

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

Type	Volume	External dimensions (w×h×d)	Grate dimensions (w×d)	Max. charge weight	Weight	Overall input**	Voltage
	l	mm	mm	kg	kg	kW	V
KLO 2400	2400	2400×3200×1850	690×950	300	1200*	4	400
KLO 4320	4300	2700×3300×2300	700×700	400	2200*	4	400

* Without filling.

** Power input of the mixing mechanism to ensure circulation of the coolant and the drive of the lifting grate. If the bath is equipped with cooling, the total power consumption may vary.



Simple operation and installation



Atypical modifications



Shipment from 10 weeks



Warranty 24 months



Instant technical support

KSL hardening salt bath

up to 1100 °C

KSL hardening salt baths are very easy to operate. They are mainly used for quick heating of steel parts before hardening without oxidation.

Industrial robustness

Mechanical durability

Easy exchange of spirals and crucible

KSL 40



STANDARD FURNACE EQUIPMENT:

- Ht40T controller
- Limit unit
- Ammeters to check the condition of heating elements
- Residual current protector

RECOMMENDED ACCESSORIES:

- Crucible
- Charge thermocouple with protective steel tube (no warranty is provided for the protective tube and its service life is approximately 1 month)
- Connection of the furnace with the switchboard, within a metal hose with a protective metal sheath
- Exhaustion collar

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

Type	Tmax	Recommended operating temp. range	Crucible capacity	External dimensions (w×h×d)	Heating power	Weight	Protection*	Voltage
	°C	°C	l	mm	kW	kg	A	V
KSL 20/11	1100	500-1000	20	950×790×950	21	570	40/3	400
KSL 40/11	1100	500-1000	38	1100×1135×1100	35	650	60/3	400
KSL 80/11	1100	500-1000	90	1400×1300×1300	53	730	100/3	400
KSL 360/11	1100	500-1000	400	1600×1900×1600	102	2600	200/3	400

* The fuse may vary depending on the accessory option.



Simple operation and installation



Atypical modifications



Shipment from 8 weeks



Warranty 24 months



Instant technical support

PT Mk.II, PTE Mk.II and PTT Mk.II electric melting stationary furnaces

up to 900/1100 °C

These furnaces are used as melting and holding units for various aluminium alloys up to 900/1100 °C (approximately 850/1050 °C in a crucible). They are designed with the emphasis on energy savings and with a view to reduce the dimensions of the equipment. This was achieved thanks to our hi-tech insulation materials and a new system for affixing the heating spirals.

Energy saving

Low purchase costs

Unique protection
of heating coils

PT 300 Mk.II



STANDARD FURNACE EQUIPMENT:

- Ht40T controller (3 programmes with 10 steps each)
- Limit unit
- Resistance heating (heating spirals)
- Protective collar of crucible made from grey iron
- Manually controlled lid
- Emergency drain at the bottom of the furnace, with flap
- "S" type limiting and controlling thermocouple
- Output switching
- Ammeters for checking the status of the heating elements (for PT Mk.II type)
- Contactless switching relay for noise-free operation
- Residual current protector
- Braces at the bottom of the furnace to ease manipulation using a forklift truck for the PT 400, PTE 400 and higher cubic capacities
- Connection between the furnace and switchboard, within a metal hose with a plastic protector, length of up to 5 m
- Wall switchboard



Simple operation
and installation



Atypical
modifications



Shipment from
6 weeks



Reduction
of emissions



Energy
saving



Warranty
24 months



Instant
technical support

RECOMMENDED ACCESSORIES:

- Crucible or crucible with thermocouple pocket
- Charge thermocouple of the “K” type with protective tube
- Thermocouple of the “K” type in the wall of the crucible (except for the PT 100 and PTE 100)
- Ht205 controller (30 programmes with 15 steps each)
- System to check for cracks in the crucible
- Ammeters to check the condition of the heating elements
- Signalling when the temperature drops below 650 °C (Ht205 controller is needed)
- Power consumption monitoring with visual output
- Connection of the furnace with the switchboard, within a metal hose with a metal sheath
- Pedal-controlled lid automatically opening upwards

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



**PTE Mk.II with
automatically opening lid**



Emergency drain



**Heating spirals in the grooves
of refractory castable shapes**



**Grey iron
protective collar**

Technical parameters.

Type	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type: Noltina or equivalent	Crucible capacity	Loading height*	External dimensions (w×h×d)	Heating power	Weight**	Voltage	Protection***
	Kg Al	°C	°C	Type	l	mm	mm	kW	kg	V	A
PT 100/11 Mk.II	105	1100	650-850	A 300	40	790	950×1360×950	23	450	400	40/3
PT 200/11 Mk.II	185	1100	650-850	BU 200	70	850	1035×1420×1025	46	555	400	80/3
PT 300/11 Mk.II	275	1100	650-850	BU 300	110	950	1125×1520×1115	50	670	400	100/3
PT 400/11 Mk.II	320	1100	650-850	BU 350	135	1050	1125×1720×1115	54	758	400	100/3
PT 500/11 Mk.II	480	1100	650-850	BU 500	180	1100	1285×1670×1275	61	890	400	125/3
PT 650/11 Mk.II	590	1100	650-850	BU 600	220	1300	1285×1870×1275	75	1125	400	125/3
PT 800/11 Mk.II	970	1100	650-850	BN 800	300	1400	1400×1970×1390	95	1210	400	160/3
PT 900/11 Mk.II	1080	1100	650-850	BN 900	370	1500	1400×2070×1390	110	1310	400	200/3
PT 1200/11 Mk.II	1250	1100	650-850	BN 1200	470	1650	1400×2220×1390	130	1460	400	250/3

* The distance from the floor up to the top edge of the crucible's protective collar.

** The weight of the furnace with the automatic lid is increased by approximately 50 kg.

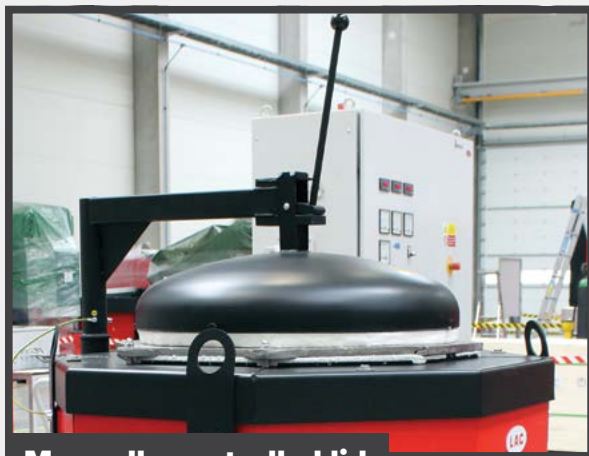
*** Protection can vary depending on the accessories selected for an extra charge.

Furnace's hourly consumption in a stabilised state [kWh], full furnace, new crucible.

Type	Holding at 700 °C		Holding at 800 °C		Melting output*
	Closed lid	Open lid	Closed lid	Open lid	Kg Al/h
PT 100/11 Mk.II	1,9	3,1	2,5	4,7	64
PT 200/11 Mk.II	2,3	4,4	2,9	6,8	133
PT 300/11 Mk.II	2,9	6,1	3,6	9,5	143
PT 400/11 Mk.II	3,0	6,2	3,8	9,6	155
PT 500/11 Mk.II	3,6	9,3	4,6	14,7	175
PT 650/11 Mk.II	3,9	9,6	5,0	15,2	217
PT 800/11 Mk.II	4,7	12,4	5,9	19,6	275
PT 900/11 Mk.II	4,9	12,5	6,1	19,8	300
PT 1200/11 Mk.II	5,2	12,7	6,5	20,0	350

* The melting output values specified in the table are the maximum ones. Approximately 80 % of the maximum value of the melting output is achieved during actual operation.

LID VARIATIONS:



Manually controlled lid



Automatically opening lid

We make these furnaces also in the PTE Mk.II version as holding units for various aluminium alloys up to 900 °C inside the furnace chamber (approximately 850 °C inside the crucible). The PTE Mk.II furnaces belong among the most effective and energy-efficient facilities on the market for holding metal alloys.

Type	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type: Noltina or equivalent	Crucible capacity	Loading height*	External dimensions (w×h×d)	Heating power	Weight**	Voltage	Protection***
	Kg Al	°C	°C	Type	l	mm	mm	kW	kg	V	A
PTE 100/09 Mk.II	105	900	650-850	A 300	40	780	950×1125×950	15	440	400	32/3
PTE 200/09 Mk.II	185	900	650-850	BU 200	70	840	1035×1185×1035	15	545	400	32/3
PTE 300/09 Mk.II	275	900	650-850	BU 300	110	940	1125×1285×1125	22	775	400	40/3
PTE 400/09 Mk.II	320	900	650-850	BU 350	135	1140	1125×1485×1125	22	660	400	40/3
PTE 500/09 Mk.II	480	900	650-850	BU 500	180	1090	1285×1635×1285	27	880	400	50/3
PTE 650/09 Mk.II	590	900	650-850	BU 600	220	1290	1285×1835×1285	27	1115	400	50/3
PTE 800/09 Mk.II	970	900	650-850	BN 800	300	1390	1400×1935×1400	38	1200	400	63/3
PTE 900/09 Mk.II	1080	900	650-850	BN 900	370	1490	1400×2035×1400	38	1300	400	63/3
PTE 1200/09 Mk.II	1250	900	650-850	BN 1200	470	1640	1400×2235×1400	40	1450	400	80/3

* The distance from the floor up to the top edge of the crucible's protective collar.

** The weight of the furnace with the automatic lid is increased by approximately 50 kg.

*** Protection can vary depending on the accessories selected for an extra charge.

Furnace's hourly consumption in a stabilised state [kWh], full furnace, new crucible.

Type	Holding at 700 °C		Holding at 800 °C		Melting output*
	Closed lid	Open lid	Closed lid	Open lid	Kg Al/h
PTE 100/09 Mk.II	1,9	3,1	2,5	4,7	27
PTE 200/09 Mk.II	2,3	4,4	2,9	6,8	27
PTE 300/09 Mk.II	2,9	6,1	3,6	9,5	40
PTE 400/09 Mk.II	3,0	6,2	3,8	9,6	40
PTE 500/09 Mk.II	3,6	9,3	4,6	14,7	50
PTE 650/09 Mk.II	3,9	9,6	5,0	15,2	50
PTE 800/09 Mk.II	4,7	12,4	5,9	19,6	73
PTE 900/09 Mk.II	4,9	12,5	6,1	19,8	73
PTE 1200/09 Mk.II	5,2	12,7	6,5	20,0	75

* The melting output values specified in the table are the maximum ones. Approximately 80 % of the maximum value of the melting output is achieved during actual operation.

We make these furnaces also in the PTT Mk.II version as transport furnaces. PTT Mk.II furnaces are suitable for transporting the melt between the melting furnace and the workplace where the melted metal is cast.

Type	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type: Noltina or equivalent	Crucible capacity	Loading height*	External dimensions (w×h×d)	Heating power	Weight**	Voltage	Protection***
	Kg Al	°C	°C	Type	l	mm	mm	kW	kg	V	A
PTT 300/09 Mk.II	275	900	650-850	BU 300	110	1040	1125×1285×1125	22	775	400	40/3
PTT 400/09 Mk.II	320	900	650-850	BU 350	135	1140	1125×1485×1125	22	660	400	40/3
PTT 500/09 Mk.II	480	900	650-850	BU 500	180	1090	1285×1635×1285	27	880	400	50/3
PTT 650/09 Mk.II	590	900	650-850	BU 600	220	1290	1285×1835×1285	27	1115	400	50/3
PTT 800/09 Mk.II	970	900	650-850	BN 800	300	1390	1400×1935×1400	38	1200	400	63/3

* The distance from the floor up to the top edge of the crucible's protective collar.

** The weight of the furnace with the automatic lid is increased by approximately 50 kg.

*** Protection can vary depending on the accessories selected for an extra charge.

PTS electric melting tilting furnaces

up to 1200 °C

The PTS furnaces are used as a melting device with the possibility of tilting and pouring the melt into the transport pan or transport holding furnace for subsequent processing at temperatures up to 1200 °C (approximately 1100 °C in a crucible).

Industrial robustness

Mechanical durability

Great insulating properties

PTS 30



STANDARD FURNACE EQUIPMENT:

- Crucible
- Hydraulic furnace tilting with hand lever control
- Ht40T controller (3 programmes with 10 steps each)
- Limit unit
- Protective collar of crucible made from grey iron
- Manually controlled lid
- Emergency drain at the bottom of the furnace, with flap
- "S" type limiting and controlling thermocouple
- Ammeters to check the condition of the heating elements
- Switching of the heaters using contactors
- Residual current protector
- Connection between the switchboard and the furnace in metal hoses with protective metal sheath, length of up to 5 m
- Wall switchboard



Simple operation
and installation



Atypical
modifications



Shipment from
12 weeks



Warranty
24 months



Instant
technical support

RECOMMENDED ACCESSORIES:

- Charge thermocouple of the “K” type with protective tube
- Thermocouple of the “K” type in the wall of the crucible (except for the PTS 30, PTS 60 and PTS 110)
- Ht205 controller (30 programmes with 15 steps each)
- System to check for cracks in the crucible
- Power consumption monitoring with visual output

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



Casting nozzle



PTS 650

Type	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type: Noltina or equivalent	Crucible capacity	External dimensions (w×h×d)	Heating power	Melting output at 700 °C**	Weight	Protection*	Voltage
	kg Al	°C	°C	Type	l	mm	kW	kg Al/h	kg	A	V
PTS 30/12	30	1200	650-1000	A 70	9	1540×1850×1300	18	30	1250	32/3	400
PTS 60/12	45	1200	650-1000	A 150	16	1600×1900×1200	21	40	1450	40/3	400
PTS 110/12	85	1200	650-1000	A 300	33	1850×2000×1550	27	55	1500	50/3	400
PTS 210/12	145	1200	650-1000	TP 287	55	1950×2000×1600	53	120	1790	100/3	400
PTS 400/12	285	1200	650-1000	TP 412	130	2000×2100×1650	63	140	2180	125/3	400
PTS 650/12	490	1200	650-1000	TP 587	200	2150×2450×1900	82	200	2820	160/3	400
PTS 970/12	840	1200	650-1000	TBN 800	320	2250×2450×2000	102	250	3500	200/3	400

* Protection can vary depending on the accessories selected for an extra charge.

** The melting output values specified in the table are the maximum ones. Approximately 80 % of the maximum value of the melting output is achieved during actual operation.

PTP gas melting stationary furnaces

up to 1200 °C

The PTP melting furnaces are used for the alloys of a variety of metals (tin, zinc, lead, aluminium, silver, gold). Thanks to the gas burner used, this furnace has a high melting output. We have achieved minimal heat losses, and thus operating cost savings for you, by using top-quality insulation materials and a rotary lid.

Mechanical durability

High melting output

Excellent insulation properties



STANDARD FURNACE EQUIPMENT:

- Ht40P controller (10 programs with 15 steps each)
- Monoblock burner
- Limit unit
- "S" type limiting and controlling thermocouple
- Flue gas extraction on the side of the furnace
- Protective collar of crucible made from grey iron
- Manually controlled lid
- Connection between the switchboard and the furnace in metal hoses with protective metal sheath, length of up to 5 m



Simple operation
and installation



Atypical
modifications



Shipment from
12 weeks



Warranty
24 months

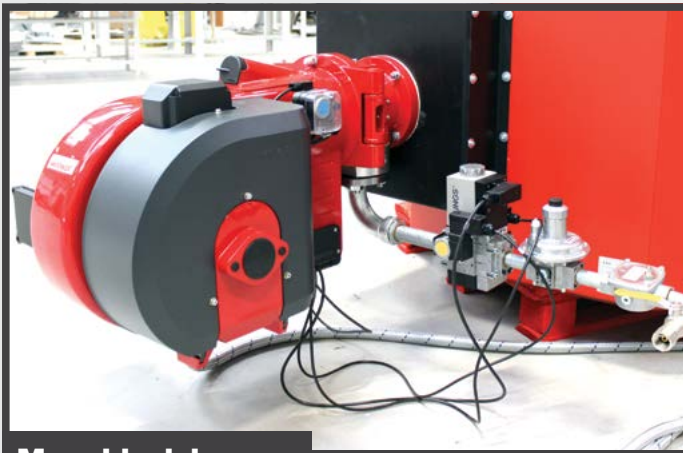


Instant
technical support

RECOMMENDED ACCESSORIES:

- Crucible
- Charge thermocouple of the “K” type with protective tube
- Thermocouple of the “K” type in the wall of the crucible
- Connection of the furnace with the switchboard, within a metal hose with a metal sheath (for lengths exceeding 5 m)
- System to check for cracks in the crucible
- Oil burner
- Double fuel burner

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



Monoblock burner



Manually controlled lid

Type	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type	Crucible capacity	Melting output at 700 °C**	External dimensions (w×h×d)*	Burner power	Weight
	kg Al	°C	°C	Noltina	l	kg Al/h	mm	kW	kg
PTP 200/12	185	1200	650-1000	BU 200	70	140	2100×1100×1400	180	900
PTP 250/12	270	1200	650-1000	BU 250	100	140	2100×1100×1400	180	1000
PTP 300/12	275	1200	650-1000	BU 300	110	150	2100×1300×1400	210	1200
PTP 350/12	320	1200	650-1000	BU 350	135	250	2100×1300×1400	300	1400
PTP 500/12	480	1200	650-1000	BU 500	180	270	2250×1300×1550	300	1700
PTP 600/12	590	1200	650-1000	BU 600	220	400	2300×1450×1600	390	1900

* Stated furnace width is inclusive of the burner inlet. Stated furnace height is inclusive of the closed lid.

** The melting output values specified in the table are the maximum ones. Approximately 80 % of the maximum value of the melting output is achieved during actual operation.

PTSP gas melting tilting furnaces

up to 1200 °C

The PTSP melting furnaces are used for the alloys of a variety of metals (tin, zinc, lead, aluminium, silver, gold) with the option to transfer the melting product into a transport ladle or a transport holding furnace for conveyance to its next point of processing. Thanks to the gas burner used, this furnace has a high melting output.

High melting performance

Mechanical durability

Minimum heat loss



PTSP 570

STANDARD FURNACE EQUIPMENT:

- Crucible
- Ht40P controller (10 programs with 15 steps each)
- Monoblock burner
- Limit unit
- "S" type limiting and controlling thermocouple
- Flue gas extraction on the side of the furnace
- Protective collar of crucible made from grey iron
- Manually controlled lid
- Connection between the switchboard and the furnace in metal hoses with protective metal sheath, length of up to 5 m
- Hydraulic furnace tilting with hand lever control



Simple operation
and installation



Atypical
modifications



Shipment from
12 weeks



Warranty
24 months



Instant
technical support

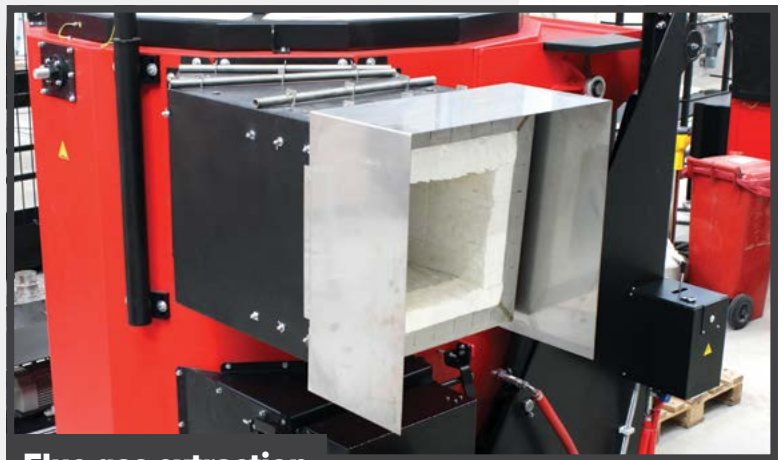
RECOMMENDED ACCESSORIES:

- Charge thermocouple of the “K” type with protective tube
- Thermocouple of the “K” type in the wall of the crucible
- Connection of the furnace with the switchboard, within a metal hose with a metal sheath (for lengths exceeding 5 m)
- System to check for cracks in the crucible
- Oil burner
- Double fuel burner

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



PTSP 1000



Flue gas extraction

Type	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type	Crucible capacity	Melting output at 700 °C**	External dimensions (w×h×d)*	Burner power	Weight
	kg Al	°C	°C	Noltina	l	kg Al/h	mm	kW	kg
PTSP 180/12	145	1200	650-1000	TP 287	55	220	2850×1350×1600	300	2000
PTSP 330/12	285	1200	650-1000	TP 412	130	240	2900×1550×1750	300	2400
PTSP 370/12	340	1200	650-1000	TP 412 H	160	260	3000×1850×1700	300	3000
PTSP 570/12	490	1200	650-1000	TP 587	200	400	3200×1750×1850	390	3800
PTSP 750/12	840	1200	650-1000	TBN 800	320	420	3400×2050×2000	450	4300
PTSP 1000/12	1050	1200	650-1000	TBN 1100	400	450	3400×2300×2000	450	5300

* Stated furnace width is inclusive of the burner inlet. Stated furnace height is inclusive of the closed lid.

** The melting output values specified in the table are the maximum ones. Approximately 80 % of the maximum value of the melting output is achieved during actual operation.

PTPR gas melting stationary furnaces with recuperation system

up to 1200 °C

The PTPR furnaces are used for melting and holding metals of up to 1200 °C (approximately 1100 °C inside the crucible). They are fitted with a recuperator which preheats the air intended for combustion in the gas burner. It reduces chimney losses and thus the furnace's consumption. This in turn can give you gas savings of 25 to 30% compared to an ordinary gas furnace.

Low operating costs

Mechanical durability

Minimum heat loss

PTPR 500



STANDARD FURNACE EQUIPMENT:

- Gas burner with recuperation
- Limit unit
- "S" type thermocouple in furnace space
- Protective collar of crucible made from grey iron
- Ht40B controller (3 programmes with 10 steps each)
- Connection between the switchboard and the furnace in metal hoses with protective metal sheath, length of up to 5 m
- Manually controlled lid



Simple operation and installation



Atypical modifications



Shipment from 12 weeks



Reduction of emissions



Energy saving



Warranty 24 months



Instant technical support

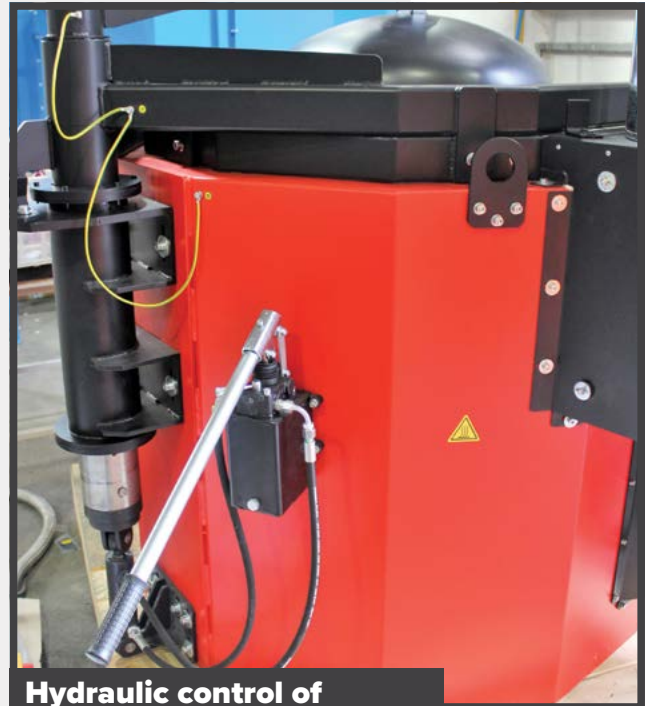
RECOMMENDED ACCESSORIES:

- Crucible
- Charge thermocouple of the “K” type with protective tube
- Thermocouple of the “K” type in the wall of the crucible
- Connection of the furnace with the switchboard, within a metal hose with a metal sheath (for lengths exceeding 5 m)
- System to check for cracks in the crucible

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



Gas burner



Hydraulic control of the furnace manhole cover

Type	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type	Crucible capacity	Melting output at 700 °C**	External dimensions (w×h×d)*	Burner power	Weight	Power consumption for melting
	kg Al	°C	°C	Noltina	l	kg Al/h	mm	kW	Kg	kWh/1 kg Al
PTPR 200/12	185	1200	650-1000	BU 200	70	200	2100×2200×1400	180	950	0,7-0,8
PTPR 250/12	270	1200	650-1000	BU 250	100	200	2100×2200×1400	180	1100	0,7-0,8
PTPR 300/12	275	1200	650-1000	BU 300	110	200	2100×2400×1400	180	1250	0,7-0,8
PTPR 350/12	320	1200	650-1000	BU 350	135	350	2100×2400×1400	300	1500	0,7-0,8
PTPR 500/12	480	1200	650-1000	BU 500	180	350	2250×2400×1550	300	1800	0,7-0,8

* Stated furnace width is inclusive of the burner inlet. Stated furnace height is inclusive of the closed lid.

** The melting output values specified in the table are the maximum ones. Approximately 80 % of the maximum value of the melting output is achieved during actual operation.

PTSPR gas melting tilting furnaces with recuperation system

up to 1200 °C

The PTSPR furnaces are used for melting metals at up to 1200 °C (approximately 1100 °C in the furnace's crucible) with the option to transfer the melting product into a transport ladle or a transport holding furnace. They are fitted with a recuperator which preheats the air intended for combustion in the gas burner. These gas furnaces with recuperation can help you save 25–30 % of gas when compared with standard gas furnaces.

Low operating costs

Mechanical durability

Minimum heat loss

PTSPR 750



STANDARD FURNACE EQUIPMENT:

- Crucible
- Gas burner with recuperation
- Protective collar of crucible made from grey iron
- Ht40B controller (3 programmes with 10 steps each)
- Limit unit
- "S" type thermocouple in furnace space
- Connection between the switchboard and the furnace in metal hoses with protective metal sheath, length of up to 5 m
- Manually controlled lid
- Hydraulic furnace tilting with hand lever control



Simple operation and installation



Atypical modifications



Shipment from 12 weeks



Reduction of emissions



Energy saving



Warranty 24 months

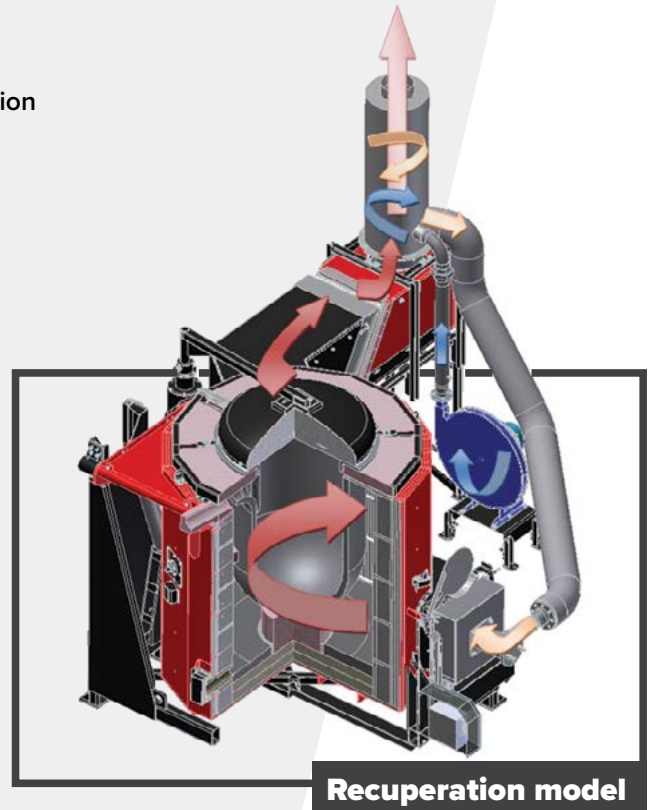


Instant technical support

RECOMMENDED ACCESSORIES:

- Charge thermocouple of the “K” type with protective tube
- Thermocouple of the “K” type in the wall of the crucible
- Connection of the furnace with the switchboard, within a metal hose with a metal sheath (for lengths exceeding 5 m)
- System to check for cracks in the crucible

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



Typ	Capacity	Tmax in furnace chamber	Recommended operating temp. range (in crucible)	Crucible type	Crucible capacity	Melting output at 700 °C**	External dimensions (w×h×d)*	Burner power	Weight	Power consumption for melting
	kg Al	°C	°C	Noltina	l	kg Al/h	mm	kW	kg	kWh/1 kg Al
PTSPR 330/12	285	1200	650-1000	TP 412	130	340	2900×2350×1750	300	2400	0,7-0,8
PTSPR 570/12	490	1200	650-1000	TP 587	200	560	3200×2650×1850	300	3800	0,7-0,8
PTSPR 750/12	840	1200	650-1000	TBN 800	320	590	3400×2950×2000	300	4300	0,7-0,8
PTSPR 1000/12	1050	1200	650-1000	TBN 1100	400	630	3400×3200×2000	300	5300	0,7-0,8

* Stated furnace width is inclusive of the burner inlet. Stated furnace height is inclusive of the closed lid.

** The melting output values specified in the table are the maximum ones. Approximately 80 % of the maximum value of the melting output is achieved during actual operation.

Measurement and control

Industrial furnaces and dryers LAC, they are fitted with the following types of quality PID controllers:

Ht200 or Ht205, Ht40A or Ht40AL, Ht40B, Ht40T and Ht40P. These types of controllers are microprocessor controlled devices that meet all requirements to control the temperature and security of electrothermal equipment.



Type	Ht200 / Ht205	Ht40B	Ht40P	Ht40A / Ht40AL	Ht40T
Designation	<p>Programmable PID controller designed for industrial applications.</p> <p>Program Ht200:</p> <ul style="list-style-type: none"> • 30 programs • 25 steps in program <p>Program Ht205:</p> <ul style="list-style-type: none"> • 30 programs • 15 steps in program 	<p>Universal PID controller.</p> <ul style="list-style-type: none"> • Control with fixed set point • Three-position control • "Slave" controller in "Master - Slave" system 	<p>Cheap programmable PID controller.</p> <p>Program:</p> <ul style="list-style-type: none"> • 10 programs • 15 steps in program 	<p>Simple programmable PID controller.</p> <p>Program Ht40A:</p> <ul style="list-style-type: none"> • 1x rise, 1x hold <p>Program Ht40AL:</p> <ul style="list-style-type: none"> • 2x rise, 2x hold 	<p>Programmable PID controller governed by a real time clock.</p> <p>Standalone programs for:</p> <ul style="list-style-type: none"> • Weekdays • Saturday • Sunday
Measuring inputs	<p>1 input:</p> <ul style="list-style-type: none"> • Temperature (Thermocouples + Pt100) • Process (voltage, current) <p>Accuracy 0,1 %</p>	<p>2 inputs, first measuring, second auxiliary.</p> <p>Measuring input:</p> <ul style="list-style-type: none"> • Temperature • Process <p>Auxiliary input:</p> <ul style="list-style-type: none"> • Process • Resistance <p>Accuracy 0,1 %</p>	<p>1 input:</p> <ul style="list-style-type: none"> • Temperature (Thermocouples + Pt100) • Process (voltage, current) <p>Accuracy 0,1 %</p>	<p>1 input:</p> <ul style="list-style-type: none"> • Temperature (Thermocouples + Pt100) • Process (voltage, current) <p>Accuracy 0,1 %</p>	<p>1 input:</p> <ul style="list-style-type: none"> • Temperature (Thermocouples + Pt100) • Process (voltage, current) <p>Accuracy 0,1 %</p>
Digital inputs	2 digital inputs	2 digital inputs	No	No	No
Outputs	<p>7 outputs:</p> <ul style="list-style-type: none"> • 2 controlling • 1 alarm • 4 auxiliary 	<p>3 outputs:</p> <ul style="list-style-type: none"> • Controlling • Controlling/auxiliary • Alarm 	<p>3 outputs:</p> <ul style="list-style-type: none"> • Controlling • Controlling/auxiliary • Alarm 	<p>3 outputs:</p> <ul style="list-style-type: none"> • Controlling • Auxiliary • Alarm 	<p>3 outputs:</p> <ul style="list-style-type: none"> • Controlling • Auxiliary • Alarm
Control	<ul style="list-style-type: none"> • PID heating control • PID cooling control • 2pos. heating control • 2pos. cooling control • 3pos. step control 	<ul style="list-style-type: none"> • PID heating control • PID cooling control • 2pos. heating control • 2pos. cooling control • 3pos. control w/o FDBK • 3pos. step control • 3pos. control with FDBK 	<ul style="list-style-type: none"> • PID heating control • PID cooling control • 2pos. heating control • 2pos. cooling control 	<ul style="list-style-type: none"> • PID heating control • 2pos. heating control 	<ul style="list-style-type: none"> • PID heating control • 2pos. heating control
Autotuning	Yes	Yes	Yes	Yes	Yes
Communication line	<p>2 communication lines:</p> <ul style="list-style-type: none"> • 2x EIA485 • LAN interface • MODBUS™ RTU protocol 	<p>1 communication line:</p> <ul style="list-style-type: none"> • RS232 • EIA485 • MODBUS™ RTU protocol 	<p>1 communication line:</p> <ul style="list-style-type: none"> • RS232 • EIA485 • MODBUS™ RTU protocol 	<p>1 communication line:</p> <ul style="list-style-type: none"> • RS232 • EIA485 • MODBUS™ RTU protocol 	<p>1 communication line:</p> <ul style="list-style-type: none"> • RS232 • EIA485 • MODBUS™ RTU protocol
USB interface	Yes / No	No	No	No	No
Datalogger	<ul style="list-style-type: none"> • For measured values (10000/500 records) • Events (5000/200 records) • Ambient temperatures 	No	<ul style="list-style-type: none"> • 500 records (date, time, measured and setting value, program) 	No	No
Monitored by HtMonit EV program	Yes	Yes	Yes	Yes	Yes
HtMonit EV set	The set contains the software, communication interface for communication with PC. The universal program HtMonit EV 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).				

Custom projects

KNC/V + KLV HARDENING LINE FOR THE HEAT TREATMENT OF ALUMINIUM CASTINGS

The KNC/V hardening furnace along with the KLV hardening bath form an automatic hardening line for heat treatment of aluminium castings. The line is designed for solution annealing and subsequent artificial ageing of Al alloy castings. The line is controlled by a programmable PLC that controls the temperature profile of the furnace, the temperature of water in the hardening bath, synchronizes the furnace travel, door movement, and charging of the charge basket. The line can be expanded with SV Mk.II furnaces in which artificial ageing takes place. The line can be delivered in the design to meet AMS 2750 standard.

The charge is loaded into the furnace from the bottom and pulled into the furnace with a chain driven electro-motor with gearbox. After processing, the charge is automatically loaded into the quenching bath using a chain-driven electro-motor with gearbox. The furnace is equipped with an electric trolley that moves along rails built into the floor.

Type	Tmax	Tmax for long-term operation	Charge	External dimensions (w×h×d)	Furnace	Quenching bath	Basket dimension (w×h×d)	Input	Weight	Protection	Voltage
	°C	°C	kg	mm	type	type	mm	kW	kg	A	V
KNC/V + KLV 200/60	600	500	200	5000×3100×3300	KNCV 1000/60	KLV 2000	750×750×750	36	3700	80/3	400
KNC/V + KLV 400/60	600	500	400	5300×3600×4100	KNCV 1800/60	KLV 4000	1200×1000×800	60	4500	125/3	400
KNC/V + KLV 1000/60	600	500	1000	6500×4000×4500	KNCV 4900/60	KLV 12000	1500×1500×1500	90	6500	160/3	400

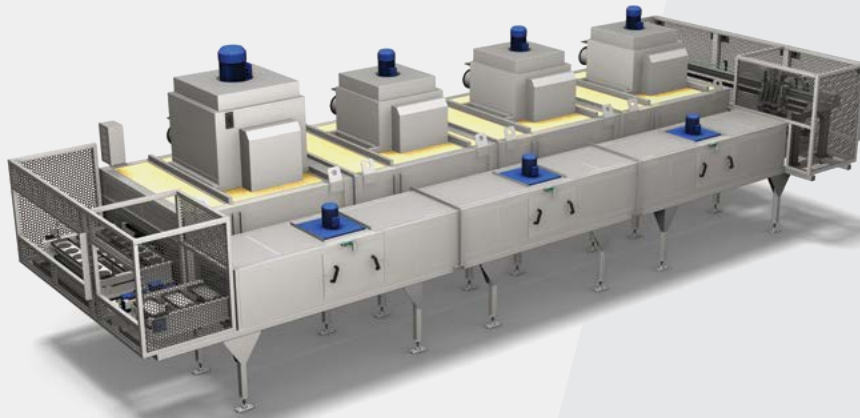


Continuous furnaces with conveyor

For heat treatment of parts in continuous operation, it is possible to use furnaces with various types of conveyor. The conveyor is selected according to type and nature of the charge. Furnaces can be part of automatic production lines; they are controlled by a programmable PLC. The furnaces are delivered with electric and gas heating.

Conveyor furnaces are designed for the heat treatment of parts at temperatures of 80 °C to 650 °C. It is possible to sync the conveyor movement in individual sections of the furnace to match the heating process temperature profile requirements and allow for the gradual temperature increase of the components.

Continuous furnaces are successfully used, for example, in automotive industry for heat treatment of aluminium and steel pistons, automobile glass, brake plates, clutch lining, electric motor stators, electronics sensors, etc.



SP 4900 CONTINUOUS FURNACE

Heat treating the graphite layer on automotive piston rims after graphitization.

Technical parameters:

Outer dimensions (w×h×d): 3500×2500×8500 mm

Furnace conveyor length: 8225 mm

Cooling conveyor length: 8225 mm

Conveyor type: conveyor with pallets

Tmax: 250 °C

Input: 86 kW

Control system: PLC Siemens

Charge: aluminium pistons

Production capacity: 1 piston/12 seconds

Place and year of installation: Poland, 2019



PRP 3800 CONTINUOUS FURNACE

Elimination of internal stress after welding on steel pistons.

Technical parameters:

Outer dimensions (w×h×d): 3100×2600×10000 mm

Furnace conveyor length: 8300 mm

Conveyor type: belt conveyor

Tmax: 650 °C

Gas heating: 300 kW

Control system: PLC Siemens

Charge: steel pistons

Production capacity: 1 piston/45 seconds

Place and year of installation: Poland, 2018



SP 5200 CONTINUOUS FURNACE

Curing of adhesives and varnishes on rotors for automotive and e-mobility solutions. The furnace consists of two heating zones

Technical parameters:

Outer dimensions (w×h×d): 2000×2500×7500 mm

Conveyor type: conveyor with pallets

Tmax: 250 °C

Input: 40 kW

Control system: PLC Siemens

Charge: electric motor rotors

Furnace load capacity: 80 pcs

Place and year of installation: Germany, 2023



SP 6900 CONTINUOUS FURNACE

Curing of automotive brake pads. The furnace consists of three independent heating zones and one cooling zone.

Technical parameters:

Outer dimensions (w×h×d): 4100×2500×8800 mm

Furnace conveyor length: 7600 mm

Furnace conveyor width: 2600 mm

Conveyor type: conveyor with racks

Furnace conveyor capacity: each rack can hold 16 pads

Tmax: 300 °C

Input: 190 kW

Control system: PLC Siemens

Charge: automotive brake pads

Time in heating zone: 100 min at working temperature

Place and year of installation: Austria, 2018



Furnaces with roller conveyor

Roller conveyor furnaces are ideal for processing bulky batches and heavy loads. They can be chamber or continuous-type furnaces and can be heated electrically or with gas burners. They are regulated by a PLC, which controls conveyor movement, doors, and partitions between zones, as well as temperature control in each zone (in multi-zone furnaces). They are commonly used in foundries for the heat treatment of molds, in industrial applications for aluminum processing, and in all applications in which there is a bulky or very heavy charge.

SP 21500 CONTINUOUS FURNACE

Curing aluminum wire coils placed upon steel pallets. There are a total of two heating zones and two cooling zones in the furnace.

Technical parameters:

Outer dimensions (w×h×d): 3200×6200×14600 mm

Furnace conveyor length: 5500 mm

Input conveyor length: 2600 mm

Output conveyor length: 6500 mm

Clearance profile (w×h): 1600×2250 mm

Tmax: 400 °C

Input: 230 kW

Control system: PLC Siemens

Charge: aluminum wire coils

Place and year of installation: Austria, 2012





Electric dryers with paternoster conveyor

The conveyor of this dryer is designed in a paternoster style for maximum use of space and requires significantly less space compared to a standard conveyor. The circulation of the atmosphere in the furnace is synchronized with the conveyor so that the temperature of the charge remains within defined limits as it moves through the heating zone, then is maintained at temperature and cooled in the cooling zone.

The flexibility achieved by using this type of conveyor furnace is seen in application of transformer mold preheating and curing. Each shelf load is up to 450 kg with 10-shelf capacity in the furnace for a maximum furnace load of 4500 kg.

Continuous furnaces are successfully used, for example, in automotive and plastics industry for tempering of welded plastic components to remove stress (automotive tail lights, interior plastics parts), or in electrotechnical industry for heat treatment of parts, electronics, etc.

SV 25200 DRYER

Tempering of automotive tail lights.

Technical parameters:

Outer dimensions (w×h×d): 3200×6100×2700 mm

Load-bearing surface of shelf (w×h×d): 840×360×800 mm

Number of shelves in furnace: 19 pcs

Production capacity: 1 part/60-70 sec = 200 000 parts/year

Tmax: 150 °C

Input: 45 kW

Control system: PLC Siemens

Place and year of installation: Czech Republic, 2016



SV 45400 DRYER

Preheating of molds for the production of electrical transformers.

Technical parameters:

Outer dimensions (w×h×d): 3000×7000×3000 mm

Load-bearing surface of shelf (w×h×d): 2200×800×800 mm

Number of shelves in furnace: 9 pcs

Max. shelf capacity: 500 kg

Tmax: 100 °C

Input: 60 kW

Place and year of installation: Czech Republic, 2018



SV 5200 FURNACE

Hardening silicone on automotive electrical parts.

Technical parameters:

Outer dimensions (w×h×d): 1300×2700×4000 mm

Method of inserting the charge: assembly unit (palette)

Palette capacity (w×h×d): 4 pcs

Tmax: 150 °C

Input: 36 kW

Production capacity: 1 part/17 seconds

Place and year of installation: Czech Republic, 2020



Custom made chamber and bogie-hearth dryers and furnaces

These furnaces and dryers are suitable for drying, curing, surface layer hardening, drying of granulates, burn-in of electronic components and the preheating of materials before further processing. They are also designed for the heat treatment of materials such as artificial ageing of aluminium and its alloys, and other materials, especially in the plastics, rubber, automotive, electronic and foundry industries. The bogie-hearth construction allows ease of loading for bulky and heavy charges using a crane or other means.



SVKP 2000 BOGIE-HEARTH DRYER

Bogie-hearth dryer with forced atmosphere circulation for artificial ageing of aluminium parts.

Technical parameters:

External dimensions (w×h×d): 3000×6000×6000 mm

Internal dimensions (w×h×d): 2000×2000×5000 mm

Tmax: 300 °C

Gas heating: 800 kW

Charge: aluminium pistons

Control system: PLC Siemens

Place and year of installation: China, 2019



VKT 35000 BOGIE-HEARTH ANNEALING FURNACE

Bogie-hearth furnace for annealing of steel parts.

Technical parameters:

External dimensions (w×h×d): 5000×6600×5000 mm

Internal dimensions (w×h×d): 3800×2400×3800 mm

Tmax: 900 °C

Input: 450 kW

Charge: cast iron and steel parts

Control system: PLC Siemens

Place and year of installation: Czech Republic, 2018



SV 11300 CHAMBER FURNACE

Chamber furnace with forced atmosphere circulation for tempering of steel parts.

Technical parameters:

External dimensions (w×h×d): 4000×5600×2600 mm

Internal dimensions (w×h×d): 2700×2200×1900 mm

Tmax: 250 °C

Input: 120 kW

Charge: hot formed steel parts

Control system: PLC Siemens

Place and year of installation: Hungary, 2021



SV 3700 FURNACE, SV 2600 COOLING CHAMBER

Chamber furnace combining 2 heating chambers and 1 cooling chamber for curing adhesives of electrotechnical parts.

Technical parameters:

External dimensions (w×h×d):

2300×3600×1700 mm

Number of the shelves: 3 pcs

Max. capacity of shelf: 400 kg

Tmax: 200 °C

Input: 30 kW

Charge: electrotechnical sensors

Control system: PLC Siemens

Place and year of installation:

Czech Republic, 2021



Carousel furnaces

Furnaces with carousel style conveyor are suitable for the continuous heat treatment of parts, which are placed on a table or a pallet rotating through the furnace. The table is driven by a gearbox with an electric motor. The heating of the furnace is mainly electric resistance. These furnaces can be designed for a variety of thermal processes, from low-temperature applications in the electrotechnical industry to high-temperature applications such as annealing ceramic molds in the foundry industry.

KRS 3700 CAROUSEL FURNACE

Carousel furnace for annealing of precision casting molds with gas heated waste combustion chamber to burn organic impurities.

Technical parameters:

Internal dimensions (D×h): 2600×750 mm

Tmax: 1250 °C

Input (carousel furnace): 100 kW

Gas heating (waste combustion chamber): 200 kW

Control system: PLC Siemens

Charge: precision casting molds

Carousel table capacity: 8 or 12 molds

Place and year of installation: Czech Republic, 2024



Reconstruction of dosing furnaces

The reconstruction of furnaces used for the dispensing of liquid metal into die casting machines was done for a renowned manufacturers of die cast aluminum castings. The reconstruction solution can be applied to various types of dosing furnaces. Testing of the furnace using thermographic equipment both before and after reconstruction is an integral part of the process and ensures the energy efficiency of the newly reconstructed furnace.

Our reconstruction solution:

- Blast cleaning and restoration of the existing mantle surface paint
- Insulation of the furnace chamber with fibrous mats and with microporous insulation panels
- Insulation of the refractory bricks on the furnace floor
- Insulation of the furnace lid
- Refractory castable tub forming the inner lining
- Refractory castable shapes forming the lining of the lid
- Drying of the furnace lining



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



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

Furnaces for ceramics and glass

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.

Top-loading ceramic kilns



Front loading ceramic kilns



Bogie-hearth furnaces



YOU WILL FIND MORE IN THE “FURNACES FOR CERAMICS AND GLASS” 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



YOU WILL FIND MORE IN THE “LABORATORY FURNACES AND DRYERS” CATALOGUE

Description of accessories and explanation of terms

COOLING

Ventilation chimney

Ventilation of the inner furnace space, airflow cannot be controlled. On request, 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 ventilation flap can only be used in combination with the Ht200/Ht205 controller.

Manually-controlled suction flap

It is used in combination with a ventilation flap for fast ventilation of the furnace space.

Exhaust fan

Exhaust fan connected to automatic ventilation flap – serves for forced flue gas exhaustion. The exhaust fan can only be used in combination with the Ht200/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.

PROTECTIVE ATMOSPHERE

Protective atmosphere inlet

Preparation of the furnace for a supply of protective atmosphere into the furnace chamber with hose input on the side of the furnace. In smaller furnaces, e.g. 550 liters volume, a bottle reducing valve with a flow meter is included.

Automatically controlled gas inlet

An automatically controlled solenoid valve can also be added to the inlet (in combination with Ht200/Ht205 controller only).

Container for heat treatment in protective atmosphere

A closed case from heat-resistant material with an inlet of protective atmosphere. The charge is inserted in the container before being inserted into the furnace. The container can be used for preventing oxidation or decarburization.

Semi-gastight design of the furnace

Adjust of the furnace design to ensure the best possible gas-tightness of the furnace workplace. This version does not replace the gas-tight design, the furnace is not suitable for heat treatment under a defined protective atmosphere. This design is useful for heat treatment with the requirement to suppress oxidation.

CALIBRATION

Calibration of the controller measuring entry

Issue of a calibration certificate defining the deviation between the temperature values displayed by the controller.

Calibration of the measuring system

Issue of a calibration certificate which defines the deviation and the theoretical values entering the controller from the thermocouple and reflecting the deviation of all elements used in the measuring system.

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. The size of the usable space is defined by the size of the charge. Including the measurement report.

Adjustments for the CQI-9 and AMS 2750 standards

The furnace or heat treatment equipment must be manufactured to reproducibly meet demanding, specific requirements, e.g., the prescribed charge temperature. These requirements are defined by CQI-9 standards (for the automotive industry) and AMS 2750 standards (for the aerospace and defense industries), which guide the heat treatment accreditation process in the National Aerospace and Defense Accreditation Program (NADCAP).

ELECTRO

Wall switchboard

The switchboard is ready for hanging on the wall.

Residual current device

Furnace protected by residual current device to disconnect protected electrical circuit in case of power leaks (e.g. damage of insulation or contact with person).

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.

Connection between furnace and switchboard in hose with protective metal sheath

The armored braided metal hose connecting the furnace to the switchboard provides protection from mechanical damage or damage due to possible splashing with hot metal.

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 material 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 EIA-485 interface. The data from the recorder can be copied onto the data storage units (SD card, USB flash disk).

Power consumption monitoring with visual output

Set of measuring and recording devices enabling long-term monitoring and data storage with information on electricity consumption during the working cycle of the furnace, with the possibility of subsequent processing and evaluation of the recorded data with the HtMonit EV program.

Gas analyzer Metrex

Serves to monitor the dangerous concentration of vapors during drying, its output is connected to an automatic ventilation flap or other elements to ensure the safeness (exhaust fan, siren, etc.).

Thermocouples – Melting and holding furnaces

CHARGE THERMOCOUPLE IN PROTECTIVE TUBE

Thermocouple placed directly in the area of the melt. Accurate measuring of the melt temperature. It is not suitable for applications where thermocouple can be damaged by manipulation with a solid charge or tools. Application mainly for holding furnaces.

CRUCIBLE POCKET THERMOCOUPLE

Thermocouple placed in crucible pocket. Measuring with accuracy within a few degrees, no damage possibility during manipulation with the charge. Suitable for holding and melting furnaces.

Standards EIA-485 or Ethernet

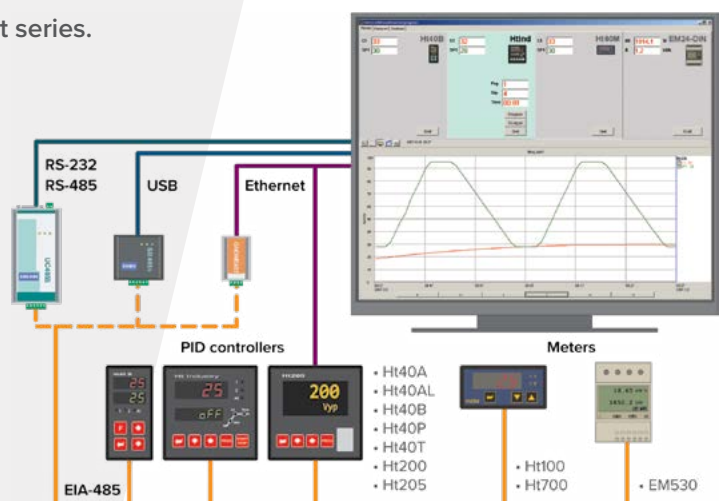
Standard EIA-485 serve as a communication link between a PC and controller device. EIA-485 can connect up to 30 devices. Contains a connector (interface) RS-485 led out to an accessible location on the furnace. Ethernet standardize local area networks (LAN) between a PC and controller device. Contains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

Monitoring program HtMonit EV

This software is designed for monitoring devices of Ht series.

The program allows:

- Monitoring up to 4 connected devices (meters)
- 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



PRODUCTION PLANTS



PRODUCTION PLANT: INDUSTRIAL FURNACES AND DRYERS

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PRODUCTION PLANT: REFRACTORY CASTABLE SHAPES

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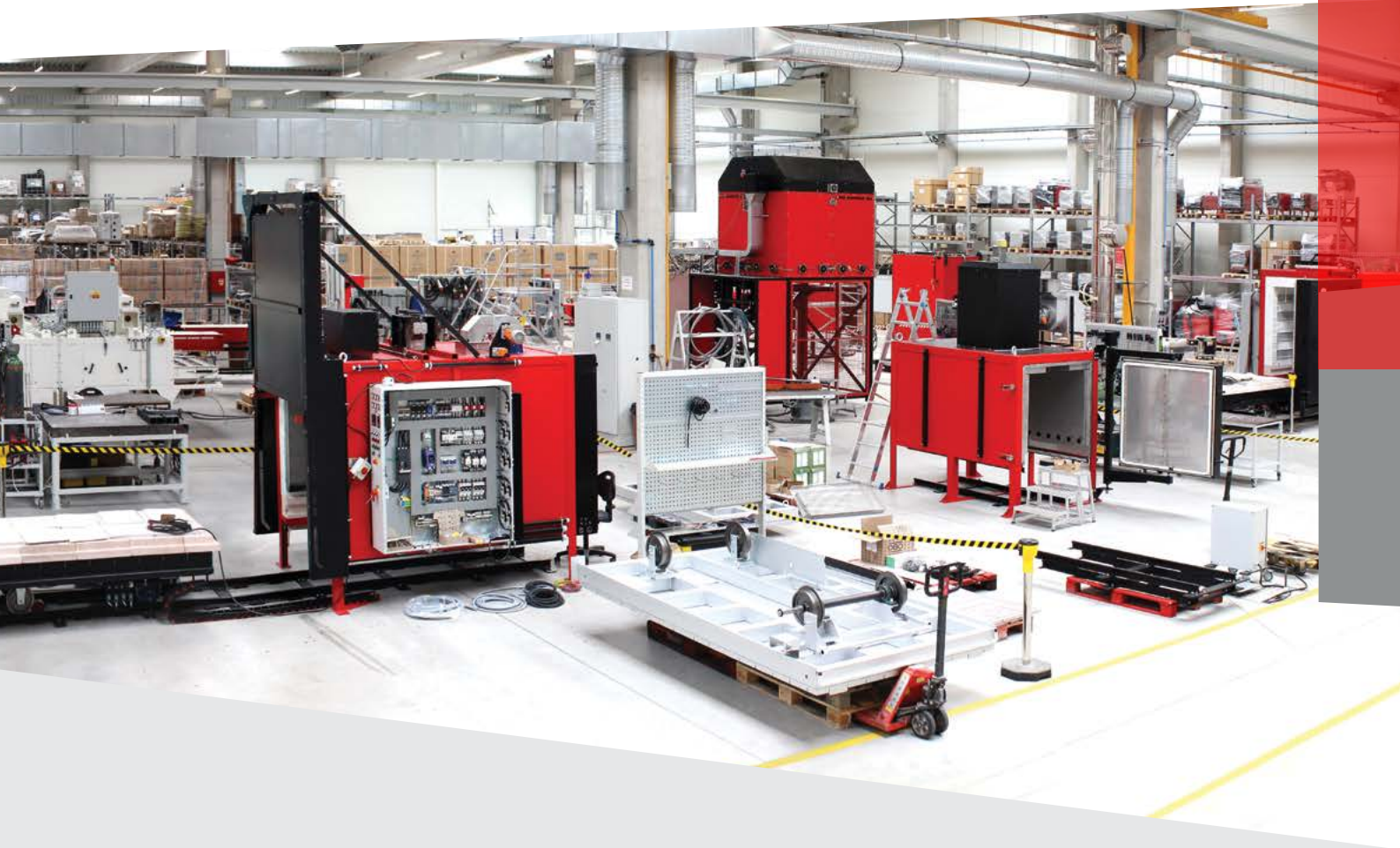
phone: +420 515 238 211

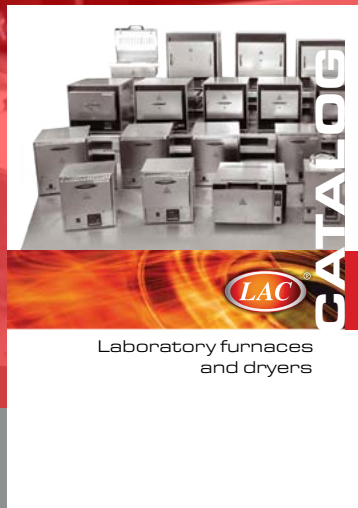
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