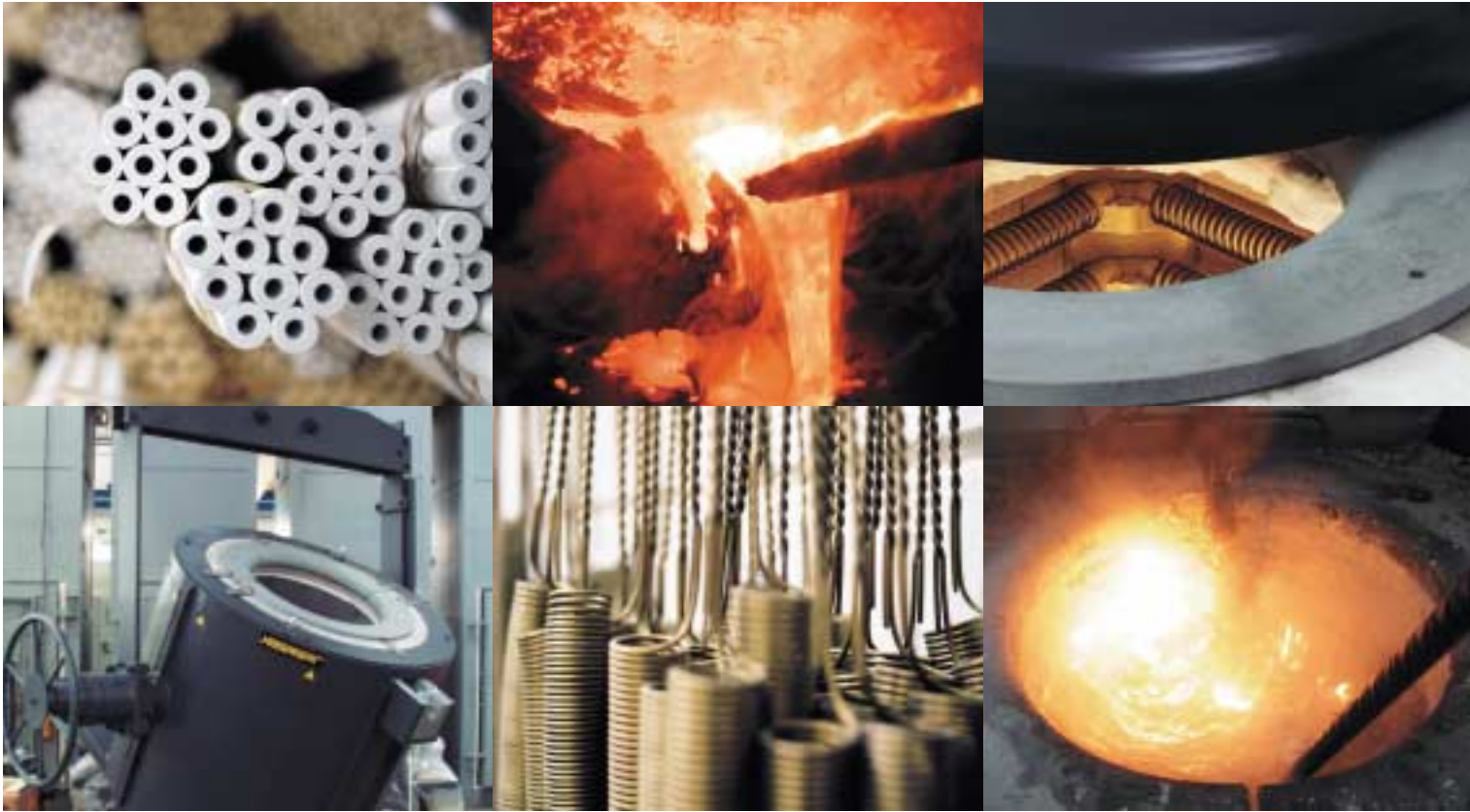


Foundry



**Furnaces and Systems
for metal melting, holding and transfer,
and for heat treatment**

More than heat...



Made in Germany

For more than 50 years, Nabertherm with its 300 employees has been developing and producing crucible furnaces and heat treatment systems for foundry applications and metal processing.

150,000 customers in 100 countries are proof of the success of our company. Short delivery times are ensured thanks to our diverse range of products and wide variety of standard furnaces.

Setting standards in quality and reliability

Decades of experience in industrial furnace building result in the generally acclaimed high "Nabertherm quality". State-of-the-art engineering, use of high-quality materials, modern regulating and control technology, are competitive edges from which you can benefit.

Innovation and technology

With its wide range of melting and holding furnaces, Nabertherm supplies customized solutions for demanding foundry applications, whether electrically heated or fuel-fired bale-out furnaces or tilting crucible furnaces for temperatures up to 1400 °C.

User-oriented solutions from one source – industrial furnaces from Nabertherm as standard or special semi-automatic or fully-automatic concepts – permit high optimization potential for melting and holding non-ferrous metals.

After-sales service

Global delivery of standard spare parts, within 24 hours ex-works. This service is also available for older models.

Modification, refurbishment, transfer or extension can be carried out promptly, even for older equipment.

Continued high level of support. Training sessions arranged on request, either in our plant or on site.



Content	Page
Competitive edges	5
Resistance-heated crucible furnaces	
Bale-out crucible furnaces, brick lined	6
Bale-out crucible furnaces, fibre lined	7
Tilting crucible furnaces, brick lined	8
Tilting crucible furnaces, fibre lined	9
SiC rod heated tilting furnaces	10
Laboratory tilting crucible furnaces	11
Resistance-heated bath-type furnaces	12
Fuel-fired tilting furnaces	
Tilting crucible furnaces	13
Tilting melting furnaces	14
Burner technology	15
Exhaust gas discharge	15
Liquid metal transport equipment	
Transport ladle TRP 240/S	16
Transportable crucible furnaces	16
Automatic carousel systems	16
Dewaxing furnaces	17
Annealing, hardening, tempering, solution treating and ageing	18
Switchgear and controllers	19
Nabertherm Homepage	20





Competitive edges

Customized solutions through

- Wide product range
- Innovative technology
- Practical R&D department

Productive furnace operation through

- Reduced downtimes
- Pneumatic lid operation (optional)
- Integral working platform (optional)
- Heated pouring spout (optional)
- Precise switchgear and controllers

Small heat loss through

- High-quality lightweight refractory bricks or energy-saving fibre insulation
- Insulated swivel lid

Long service life through

- Freely radiating heater coils
- Rugged furnace construction
- Collar plate made of insulating concrete

Long service life of crucibles through

- Optimized furnace construction
- Cast-iron collar protection ring

Furnace protection in case of crucible failure through

- Generously dimensioned emergency outlet
- Crucible failure alarm (optional)

Quick crucible change through

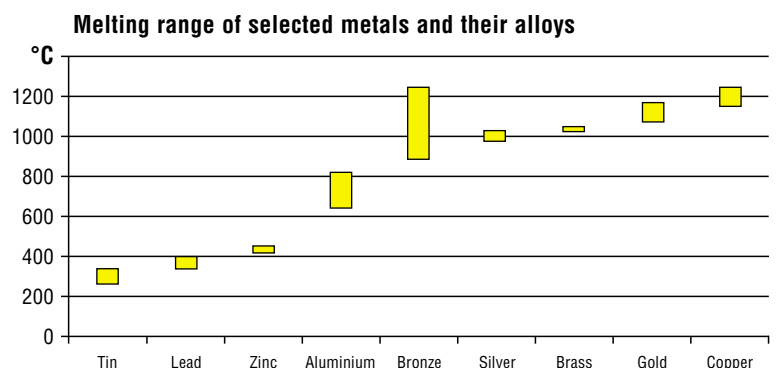
- Easily removable collar plate

Cost effectiveness through

- Low purchase costs
- Low energy consumption
- Low ageing of heater coils

Production security through

- Global service network
- Fast spare part supply
- Tele-service and monitoring
- Instant fault diagnosis via Internet



Resistance-heated crucible furnaces:

Bale-out crucible furnaces, *brick-lined*



T 80/11

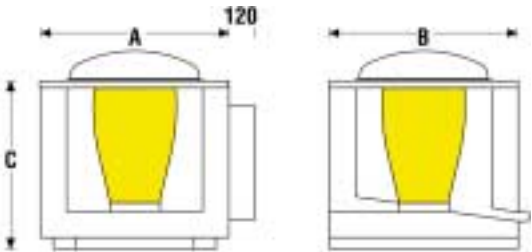
- Furnace chamber temperatures up to 1000 or 1300 °C
- Durable lightweight hot-face insulating bricks
- Optimized efficiency and extended service life due to freely radiating heating elements mounted on horizontal support tubes
- Heating on all 4 sides
- Protection against contamination by insulation and sealing of the crucible
- Protection of the rim of the bale-out opening by heat-resistant cast iron ring

Model	T _{max} °C	Crucible	Capacity		Outer dimensions in mm			Power kW	Weight kg	Melting performance ¹		Holding lid open/ closed (kW)
			Kg Al	Kg Cu	A	B	C			kg/h Al	kg/h Cu	
T 80/10	1000	BU 200	200	-	1150	1150	1030	20	660	for holding only		4/9*
T 110/10	1000	BU 300	300	-	1240	1240	1130	26	890			5/10*
T 150/10	1000	BU 350	350	-	1240	1240	1290	38	920			5/10*
T 180/10	1000	BU 500	500	-	1410	1410	1290	42	1120			7/15*
T 240/10	1000	BU 600	600	-	1410	1410	1390	50	1240			7/15*
T 10/11	1100	A 70	20	-	860	860	790	16	400	32*	-	35*
T 20/11	1100	A 150	45	-	940	940	790	20	460	42*	-	3/6*
T 40/11	1100	A 300	90	-	1010	1010	880	26	580	58*	-	3/7*
T 80/11	1100	BU 200	200	-	1110	1110	940	50	650	126*	-	4/9*
T 110/11	1100	BU 300	300	-	1200	1200	1040	60	880	136*	-	5/10*
T 150/11	1100	BU 350	350	-	1200	1200	1250	60	900	147*	-	5/10*
T 180/11	1100	BU 500	500	-	1370	1370	1250	70	1080	168*	-	7/15*
T 240/11	1100	BU 600	600	-	1370	1370	1350	80	1200	210*	-	7/15*
T 10/12	1200	A 70	20	70	860	860	770	16	440	32*	47**	5/8**
T 20/12	1200	A 150	45	150	940	940	770	20	520	42*	63**	5/10**
T 40/12	1200	A 300	90	300	1010	1010	860	26	600	58*	84**	5/12**
T 80/12	1200	BU 200	200	650	1110	1110	930	50	760	126*	190**	5/15**
T 10/13	1300	A 70	20	70	900	900	890	16	600	32*	47**	5/8**
T 20/13	1300	A 150	45	150	980	980	890	20	640	42*	63**	5/10**
T 40/13	1300	A 300	90	300	1050	1050	970	26	760	58*	84**	5/12**
T 80/13	1300	BU 200	200	650	1150	1150	1030	50	960	126*	190**	5/15**

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.

* at 700 °C

** at 1000 °C



Bale-out crucible furnaces, *fibre-lined*



TF 110/10

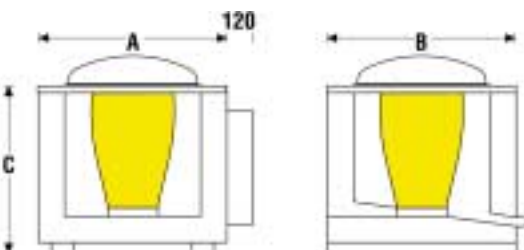
- Furnace chamber temperatures up to 1000 or 1300 °C
- Energy-saving fibre insulation
- For further technical specifications see bale-out crucible furnaces, brick-lined

Model	T _{max} °C	Crucible	Capacity		Outer dimensions in mm			Power kW	Weight kg	Melting performance ¹		Holding lid open/ closed (kW)
			Kg Al	Kg Cu	A	B	C			kg/h Al	kg/h Cu	
TF 80/10	1000	BU 200	200	-	1150	1150	1030	20	530	nur zum Warmhalten		4/9*
TF 110/10	1000	BU 300	300	-	1240	1240	1130	26	710			5/10*
TF 150/10	1000	BU 350	350	-	1240	1240	1290	38	740			5/10*
TF 180/10	1000	BU 500	500	-	1410	1410	1290	42	900			7/15*
TF 240/10	1000	BU 600	600	-	1410	1410	1390	50	990			7/15*
TF 10/11	1100	A 70	20	-	860	860	790	16	320	34*	-	35*
TF 20/11	1100	A 150	45	-	940	940	790	20	370	44*	-	3/6*
TF 40/11	1100	A 300	90	-	1010	1010	880	26	460	61*	-	3/7*
TF 80/11	1100	BU 200	200	-	1110	1110	940	50	520	132*	-	4/9*
TF 110/11	1100	BU 300	300	-	1200	1200	1040	60	700	143*	-	5/10*
TF 150/11	1100	BU 350	350	-	1200	1200	1250	60	720	154*	-	5/10*
TF 180/11	1100	BU 500	500	-	1370	1370	1250	70	860	176*	-	7/15*
TF 240/11	1100	BU 600	600	-	1370	1370	1350	80	960	221*	-	7/15*
TF 10/12	1200	A 70	20	70	860	860	770	16	350	34*	49**	5/8**
TF 20/12	1200	A 150	45	150	940	940	770	20	420	44*	66**	5/10**
TF 40/12	1200	A 300	90	300	1010	1010	860	26	480	61*	88**	5/12**
TF 80/12	1200	BU 200	200	650	1110	1110	930	50	610	132*	200**	5/15**
TF 10/13	1300	A 70	20	70	900	900	890	16	480	34*	49**	5/8**
TF 20/13	1300	A 150	45	150	980	980	890	20	510	44*	66**	5/10**
TF 40/13	1300	A 300	90	300	1050	1050	970	26	610	61*	88**	5/12**
TF 80/13	1300	BU 200	200	650	1150	1150	1030	50	770	132*	200**	5/15**

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.

* at 700 °C

** at 1000 °C



Resistance-heated crucible furnaces:

Tilting melting furnaces, *brick-lined*



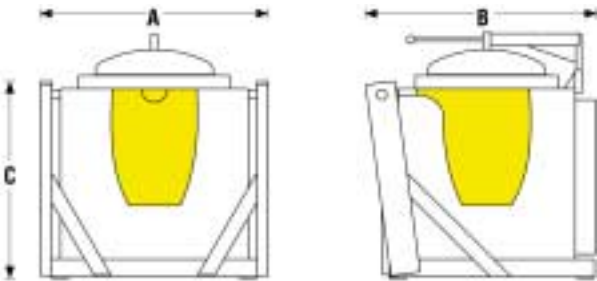
K 40/12

- Furnace chamber temperatures up to 1200 or 1300 °C
- Durable lightweight hot-face insulating bricks
- High melting performances, optimum efficiency and long service life due to freely radiating heating elements mounted on horizontal support tubes
- Low energy consumption for melting (0.4 kWh/kg Al)
- Optimum temperature uniformity by heating on 2 sides and rear wall
- Trouble-free operation with 2 cushioned hydraulic cylinders
- Low heat loss and protection of the furnace chamber against contamination by insulation and sealing of the crucible
- Exact and uniform pouring at different tilting angles
- Rugged steel construction

Model	T _{max} °C	Crucible	Capacity		Outer dimensions in mm			Power kW	Weight kg	Melting performance ¹		Holding lid open/ closed (kW)
			Kg Al	Kg Cu	A	B	C			kg/h Al	kg/h Cu	
K 10/12	1200	A 70 ²	20	70	1510	1240	1040	16	920	30*	45**	3/7*
K 20/12	1200	A 150 ²	45	150	1660	1360	1060	20	1150	40*	60**	3/7*
K 40/12	1200	A 300 ²	90	300	1740	1470	1140	26	1550	55*	80**	3/7*
K 80/12	1200	TP 287	180	550	1800	1700	1180	50	1750	120*	180**	4/10*
K 150/12	1200	TP 412	330	970	1870	1900	1460	60	2200	140*	210**	5/12*
K 240/12	1200	TP 587	570	-	2010	2000	1460	80	2800	200*	-	8/17*
K 360/12	1200	BUK 800	750	-	2120	2100	1550	100	3400	250*	-	11/20*
K 400/12	1200	TBN 1100	1050	-	2120	2100	1700	126	3700	280*	-	12/22*
K 10/13	1300	A 70 ²	20	70	1510	1240	1040	16	980	30*	45**	5/8**
K 20/13	1300	A 150 ²	45	150	1660	1360	1060	20	1280	40*	60**	5/8**
K 40/13	1300	A 300 ²	90	300	1740	1470	1140	26	1650	55*	80**	5/8**
K 80/13	1300	TP 287	180	550	1800	1700	1180	50	1950	120*	180**	6/11**

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.
² Crucible with long spout

* at 700 °C ** at 1000 °C



Tilting melting furnaces, fibre-lined



KF 80/12

- Furnace chamber temperatures up to 1200 or 1300 °C
- Energy-saving fibre insulation
- For further technical details see tilting melting furnaces, brick-insulated

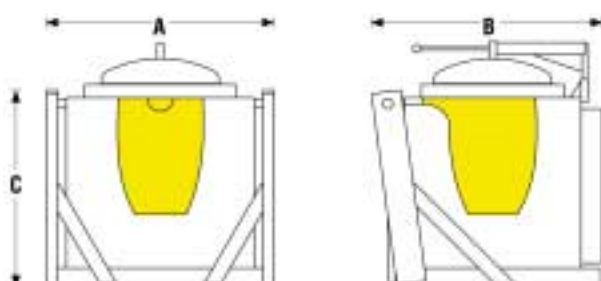
Model	T _{max} °C	Crucible	Capacity		Outer dimensions in mm			Power kW	Weight kg	Melting performance ¹		Holding lid open/ closed (kW)
			Kg Al	Kg Cu	A	B	C			kg/h Al	kg/h Cu	
KF 10/12	1200	A 70 ²	20	70	1510	1240	1040	16	750	32*	47**	3/7*
KF 20/12	1200	A 150 ²	45	150	1660	1360	1060	20	940	42*	63**	3/7*
KF 40/12	1200	A 300 ²	90	300	1740	1470	1140	26	1270	58*	84**	3/7*
KF 80/12	1200	TP 287	180	550	1800	1700	1180	50	1430	126*	190**	4/10*
KF 150/12	1200	TP 412	330	970	1870	1900	1460	60	1800	147*	220**	5/12*
KF 240/12	1200	TP 587	570	-	2010	2000	1460	80	2290	210*	-	8/17*
KF 360/12	1200	BUK 800	750	-	2120	2100	1550	100	2780	260*	-	11/20*
KF 400/12	1200	TBN 1100	1050	-	2120	2100	1700	126	3030	295*	-	12/22*
KF 10/13	1300	A 70 ²	20	70	1510	1240	1040	16	800	32*	47**	5/8**
KF 20/13	1300	A 150 ²	45	150	1660	1360	1060	20	1040	42*	63**	5/8**
KF 40/13	1300	A 300 ²	90	300	1740	1470	1140	26	1350	58*	84**	5/8**
KF 80/13	1300	TP 287	180	550	1800	1700	1180	50	1600	126*	190**	6/11**

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.

* at 700 °C

** at 1000 °C

² Crucible with long spout



Resistance-heated crucible furnaces:

SiC rod heated bale-out & tilting furnaces



TC 80/14

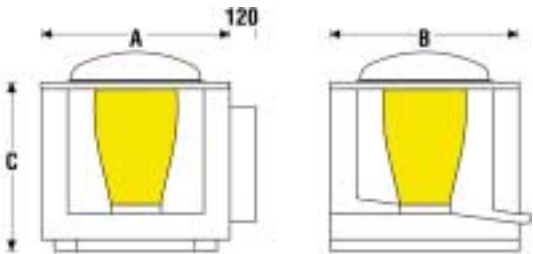
- Furnace chamber temperature up to 1400 °C
- High melting performance in the range above 1200 °C
- Protection of the SiC heating elements by special anti-vibration mounting
- Protection of the furnace chamber against contamination by special insulation and sealing
- Heat-resistant cast iron ring for protecting the rim of the bale-out opening
- Optimized performance
- Service-friendly furnace operation (heating elements can be replaced at temperature)

Model	T _{max} °C	Crucible	Capacity		Outer dimensions in mm			Power kW	Weight kg	Melting performance¹	
			Kg Al	Kg Cu	A	B	C			kg/h Al	kg/h Cu
TC 20/14	1400	A 150	45	150	1200	1250	930	36	830	80*	120**
TC 40/14	1400	A 300	90	300	1260	1250	1020	36	950	80*	120**
TC 80/14	1400	BU 200	200	650	1360	1350	1080	48	1050	120*	180**
TC 150/14	1400	BU 300	300	1000	1450	1320	1300	66	1300	140*	220**
KC 20/14	1400	A 150	45	150	1710	1900	1050	36	1500	80*	120**
KC 40/14	1400	A 300	90	300	1770	1900	1100	36	1600	80*	120**
KC 80/14	1400	BU 200	200	650	1880	1970	1160	48	1900	120*	180**
KC 150/14	1400	BU 300	300	1000	2000	2070	1300	66	2700	140*	220**

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.

* at 700 °C

** at 1000 °C



Laboratory tilting crucible furnaces



K 1/10

- Furnace chamber temperatures up to 1000 or 1300 °C
- Crucible with spout included as standard delivery
- Compact bench-top design, crucible can be emptied easily due to tilting mechanism with pneumatic assist
- Crucible insulated by hinged lid

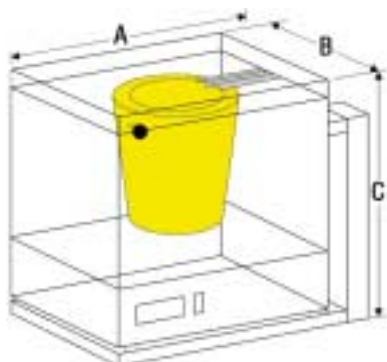
Model	T _{max} °C	Crucible	Capacity		Outer dimensions in mm			Power kW	Weight kg	Melting performance ¹	
			Kg Al	Kg Cu	A	B	C			kg/h Al	kg/h Cu
K 1/10	1000	A 6	2	-	620	580	620	3	80	6*	-
K 2/10	1000	A 10	3	-	620	580	620	3	82	6*	-
K 4/10	1000	A 25	7	-	700	630	670	3,6	110	8*	-
K 1/13 ²	1300	A 6	2	6	620	580	620	3	80	6*	10**
K 2/13 ²	1300	A 10	3	10	620	580	620	3	82	6*	10**
K 4/13 ²	1300	A 25	7	25	700	630	670	5,5	110	8*	14**

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.

* at 700 °C

** at 1000 °C

² Outer dimensions plus transformer in separate housing



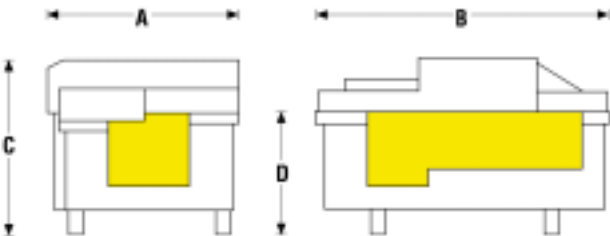
Resistance-heated bath-type furnaces



B 250

- Furnace heating chamber temperature up to 1000 °C
- Long service life and small connected loads due to walls with special bricks and insulation
- High energy efficiency through heating located in top cover of furnace (free heat radiation onto bath surface)
- Bath can be cleaned easily due to swivelling cover
- Small heat loss from filling and ladling openings with insulated lids
- Optional: Adaption to suit dosing pump, modifiable ladling opening

Model	T _{max}	Capacity	Outer dimensions in mm				Weight	Ladling well	Power	Holding
	°C	Kg Al	A	B	C	D	kg	mm	kW	kW
B 120	1000	300	1150	1900	1160	770	1900	300 x 300	11	2
B 250	1000	600	1280	2030	1200	830	2450	380 x 380	14	3
B 500	1000	1200	1450	2350	1240	960	3700	430 x 430	20	5



Fuel-fired crucible bale-out furnaces



TB 240/14

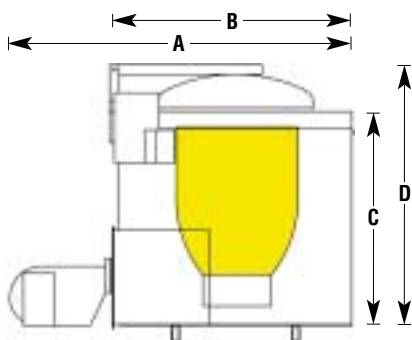
- Furnace chamber temperatures up to 1200 °C or 1400 °C
- Gas- or oil-fired
- High melting performance with high energy efficiency
- High-quality lightweight refractory brick insulation
- High combustion efficiency due to positive pressure operation (avoids air ingress)
- Low energy consumption (approx. 1.3 kWh/kg Al)
- Optimum furnace chamber geometry through use of high crucible stands, correctly sized exhaust flues and optimized combustion space
- Low noise level
- Generously dimensioned emergency outlet to protect the furnace in case of crucible failure
- Optional working platform
- Side exhaust (models TB 80/12 – TB 240/12)
- Exhaust discharge over rim of crucible
(for models TB 10/14 – TB 80/14, side exhaust available as extra)

Furnace type	T _{max}	Crucible	Capacity		Max. melting performance ¹		Consumption holding Lid closed KWh/h	Consumption melting KWh/kg	Burner rating kW	Outer dimensions in mm				Weight
	°C		Kg Al	Kg Cu	Kg Al/h	Kg Cu/h				A	B	C	D	kg
								Al						
TB 80/12	1200	BU 200	200	650	140*	-	10	1,3 - 1,5	180	1870	1202	980	1240	900
TB 100/12	1200	BU 250	250	830	140*	-	11	1,3 - 1,5	180	1980	1310	1030	1380	1000
TB 110/12	1200	BU 300	300	1000	150*	-	13	1,3 - 1,5	210	1980	1310	1120	1510	1200
TB 150/12	1200	BU 350	350	1150	250*	-	15	1,3 - 1,5	300	1980	1310	1250	1550	1400
TB 180/12	1200	BU 500	500	1650	270*	-	17	1,3 - 1,5	300	2140	1450	1260	1560	1700
TB 240/12	1200	BU 600	600	2000	400*	-	19	1,3 - 1,5	390	2180	1490	1400	1700	1900
								Cu						
TB 10/14	1400	A 100	30	100	-	90**	22	1,0 - 1,3	210	1590	976	931	1190	1000
TB 20/14	1400	A 150	45	150	-	100**	22	1,0 - 1,3	210	1870	1080	1050	1310	1250
TB 40/14	1400	A 400	120	400	-	300**	25	1,0 - 1,3	300	2000	1210	1200	1460	1500
TB 60/14	1400	A 500	150	500	-	320**	25	1,0 - 1,3	320	2000	1210	1250	1510	1600
TB 80/14	1400	A 600	180	600	-	320**	25	1,0 - 1,3	320	2050	1260	1280	1540	1750

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.

* at 700 °C

** at 1000 °C



Fuel-fired tilting melting furnaces



KB 240/12

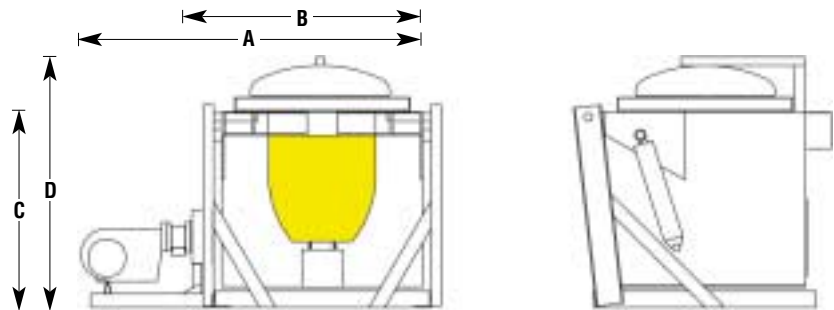
- Furnace chamber temperatures up to 1200 °C or 1400 °C
- Gas- or oil-fired
- Tilting system with two powerful and precise hydraulic cylinders
- For further technical details see fuel-fired bale-out crucible furnaces
- Exhaust discharge over rim of crucible
- Side exhaust discharge available as extra

Furnace type	T _{max} °C	Crucible	Capacity		Max. melting performance ¹		Consumption heat retention KW/h/h	Consumption melting KW/h/kg	Burner rating kW	Outer dimensions in mm				Weight kg
			Kg Al	Kg Cu	Kg Al/h	Kg Cu/h				A	B	C	D	
KB 80/12	1200	TP287	180	550	220*	-	10	1,3-1,5	300	2030	1400	1250	1510	1800
KB 150/12	1200	TP 412	330	970	240*	-	11	1,3-1,5	300	2140	1510	1450	1710	2200
KB 180/12	1200	TP 412 H	370	1200	260*	-	13	1,3-1,5	300	2140	1510	1550	1810	2400
KB 240/12	1200	TP 587	570	-	400*	-	15	1,3-1,5	390	2650	1750	1550	1810	2600
KB 360/12	1200	TBN 800	750	-	420*	-	17	1,3-1,5	450	2650	1750	1650	1910	2900
KB 400/12	1200	TBN 1100	1000	-	450*	-	19	1,3-1,5	450	2650	1750	1820	2080	3300
KB 40/14	1400	R400/TP982	120	400	-	330**	22	1,0-1,3	400	2070	1440	1510	1770	2300
KB 60/14	1400	R 500	150	500	-	360**	25	1,0-1,3	400	2070	1440	1550	1810	2500
KB 80/14	1400	R 600	180	600	-	380**	25	1,0-1,3	400	2070	1440	1650	1910	2650

¹ The specified melting performances are maximum values. In practice, approx. 80% is achieved.

* at 700 °C

** at 1000 °C



Burner technology



Burner

- Burner technology for furnace chamber temp. of 1200 °C or 1400 °C
- Gas-, oil-, or dual-fuel burners with state-of-the-art technology
- Two-step control
- Automatic operation
- Flame head can be removed easily when burner is swung out
- On dual-fuel burners, fuel changeover by manual or automatic switch-over, no conversion work required
- Delivered complete with gas train consisting of pressure regulator, gas filter, pressure gauge, solenoid valves and all other necessary devices
- Built to meet DIN 746, Part 2 Standards
- High operational and functional safety
- Low NOx emission
- Safe flame monitoring
- Easy to install
- Service-friendly construction
- Easy to maintain
- Express delivery of spare parts



KB 360/12 with operating platform

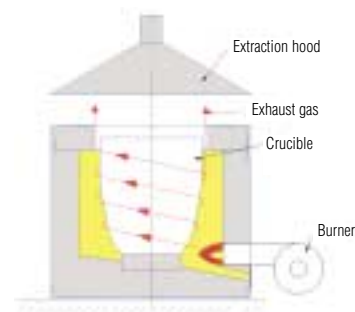
Exhaust gas discharges

Over the crucible rim:

Applies to models: TB 10/14 - TB 80/14,
KB 80/12 - KB 400/12, KB 40/14 - KB 80/14

Optional extra: Side exhaust

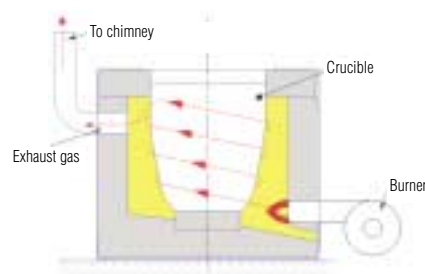
- High melting performance
- Low energy consumption



Side exhaust gas discharge:

applies to models: TB 80/12 - TB 240/12

- Low dross loss
- Reduced hydrogen pick-up
- Reduced emission of pollutants
- With swivelling or hinged lid for energy saving





TRP 240/S

Transport systems

Transport ladle

- Furnace chamber temperature up to 900 °C
- Electrically heated
- Transfer of molten charges to casting stations
- Optimized centre of gravity
- Smooth-running Rotostop gears
- Easy to operate
- Precise pouring
- Long crucible life through ideal arrangement of heating modules
- Avoidance of long service downtimes due to individually replaceable heating modules

Model	Crucible	Max. temperature °C	Melting performance Kg Al/h	Outer dimensions in mm			Power kW
				W	D	H	
TRP 240/S	TP 587/TP 587 SF	900	200	2230	1430	1210	69



Transportable crucible furnaces

- Standard crucible furnaces with fork-truck slots and shock absorbers for safe transport
- Transport arrangement to suit all resistance-heated crucible furnaces, models T... - TF... (see pages 6 and 7)

Automatic carousel systems



- Automatic rotation to casting and/or ladling stations
- Fully-automatic control
- High positioning accuracy
- Revolving tables up to 8 m diameter
- Up to 6 holding furnaces
- Time for 60° movement < 30 seconds
- Emergency duct below the turn-table
- High efficiency and productivity

Dewaxing furnaces



S 240/S



N 200/GS

- For melting wax patterns out of moulds and subsequent firing of ceramic investments
- Furnace chamber temperature up to 850 °C
- Fume discharge through integral outlet
- Reception and draining of residue through special hearth trough and heated bottom outlet

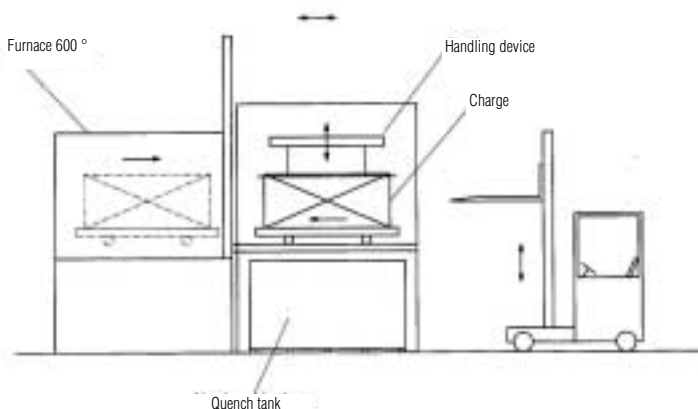
Model	T _{max} °C	Inner dimensions in mm			Volume Litres	Outer dimensions in mm			Power kW
		W	D	H		W	D	H	
Top-loading furnace									
S 240/S	850	940	560	550	240	1480	900	900	19
Box-type furnaces									
N 100/GS	850	400	530	460	100	660	1045	1430	7
N 150/GS	850	450	530	590	150	710	1045	1560	9
N 200/GS	850	500	530	590	200	760	1045	1690	11
N 300/GS	850	550	700	780	300	810	1215	1750	15
N 450/GS	850	600	750	1000	450	1010	1440	1815	20
N 650/GS	850	700	850	1100	650	1120	1540	1925	26
N 1000/GS	850	800	1000	1250	1000	1290	1730	1830	40
N 1500/GS	850	900	1200	1400	1500	1390	1930	1990	57
N 2200/GS	850	1000	1400	1600	2200	1490	2130	2190	75

Annealing, hardening, tempering, solution treating and ageing



- Box-type, bogie-hearth and top-loading furnaces
- Electrically heated
- Temperatures up to 1800 °C
- Volumes up to 20,000 litres
- Temperature accuracy down to ± 2 K
- Normal and protective-gas atmosphere
- Manual, semi- or fully-automatic operation
- Process documentation capability
- Air circulation
- Reasonably priced customized technology due to wide range of furnace types and ancillaries
- High optimization potential since complete systems are provided from one source
- Rapid investment pay-back through highly efficient processes
- Uniform mechanical properties of cast products through high temperature accuracy and precise control of heat treatment
- High productivity and implementation of automated concepts

**Ask for our separate leaflet on
heat-treatment furnaces and systems**





Switchgear and controllers

- Controllers from our own R&D department
- Optimized process control through individual adaptation of switchgear and controllers to suit furnaces and installation
- Long service life and prevention of downtime through high-quality electrical and electronic components
- Operation at reduced capacity possible through multi-step circuitry
- Control of energy costs with kWh-meter and operating hours counter
- Highest electrical safety for personnel and environment through residual current circuit-breaker

System control options:

- Melt temperature control designed as:
 - cascade
 - on/off-regulation
- Thyristor heating regulation:
 - phase switching
 - phase angle control
 - or solid-state relay, (zero-point switching)
- Visual/audible signals for all functions
- Over-temperature policeman
- Temperature recorder
- kWh-meter and operating hours counter
- Crucible failure alarm
- Adjustable timer
- Special voltages possible
- Power management for optimum utilization of available energy capacities



Ask for our separate leaflet on switchgear and controllers.



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Apart from the solutions presented here for foundry applications, Nabertherm provides a wide variety of alternative solutions for heat treatment. Thanks to our close collaboration with many world-renowned customers, we are able to provide a solution for your kind of problem.

If you need support in the fields of glass, ceramics, heat treatment of metals, foundry or other applications, we are at your disposal.

References:

