

**Nabertherm**

MORE THAN HEAT 30-3000 °C



# ARTS & CRAFTS

[www.nabertherm.com](http://www.nabertherm.com)

■ Made  
■ in  
■ Germany



## Facts

- Production of Arts & Crafts furnaces, laboratory furnaces, dental furnaces and industrial furnaces since 1947
- Production site in Lilienthal/Bremen - Made in Germany
- 530 employees worldwide
- 150,000 customers in more than 100 countries
- Very wide product range of furnaces
- One of the biggest R&D departments in the furnace industry
- High vertical integration

## Global Sales and Service Network

- Manufacturing only in Germany
- Decentralized sales and service close to the customer
- Own sales organization and long term sales partners in all important world markets
- Individual on-site customer service and consultation
- Fast remote maintenance options for complex furnaces
- Reference customers with similar furnaces or systems close to you
- Secured spare parts supply, many spare parts available from stock
- Further information see page 50

## Setting Standards in Quality and Reliability

- Project planning and construction of tailor-made thermal process plants incl. material handling and charging systems
- Innovative controls and automation technology, adapted to customer needs
- Very reliable and durable furnace systems
- Customer test center for process assurance

## Experience in Thermal Processing

- Thermal Process Technology
- Additive Manufacturing
- Advanced Materials
- Fiber Optics/Glass
- Foundry
- Laboratory
- Dental
- Arts & Crafts

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# Top Loaders

The Nabertherm top loaders convince with their attractive design made of a high-quality stainless steel housing, combined with an intuitively operated controller with colored touch display. Due to the excellent price-performance ratio, the Nabertherm top loader is the reliable and loyal partner in your workshop. With the free MyNabertherm app, the firing can be monitored on mobile devices and the progress of the firing can be tracked at any time.

TOP loaders for TOP firing results.

The following equipment applies to all top loaders in this chapter:



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that alumino silicate wool, also known as “refractory ceramic fiber” (RCF), which is classified and possibly carcinogenic, is not used.



Defined application within the constraints of the operating instructions



Controller with intuitive touch operation



NTLog Basic for Nabertherm controller: recording of process data with USB-flash drive



Freeware NTEdit for convenient program input via Excel™ for Windows™ on the PC



Freeware NTGraph for evaluation and documentation of firings using Excel™ for Windows™ on the PC



MyNabertherm App for online monitoring of the firing on mobile devices for free download



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## Product Advantages Top Loaders



Three-layer insulation with high-quality, energy-saving backing insulation for low external temperatures and a good energy balance for kilns up to 60 liters



DEKRA certification



Two-layer insulation with durable light-weight refractory bricks and energy-saving backing insulation adapted to the maximum kiln temperature for kilns from 80 liters



Housing shell made from structured stainless steel



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that alumino silicate wool, also known as "refractory ceramic fiber" (RCF), which is classified and possibly carcinogenic, is not used.



Durable lid seal (brick on brick)



Adjustable lid with quick-release lock and padlock



Solid state relays ensure low noise heater operation



Integrated gas-pressured springs for easy opening and closing of the lid



Easy to use controller for precise temperature control, removable for comfortable operation



Important data about power consumption and operating hours available via the information menu of the controller



Thermocouple protected in the insulation



Infinitely adjustable air inlet in opening in the kiln bottom for good ventilation and short cooling times



Bypass connection for an exhaust air pipe (80 mm diameter)

## Top Loaders Round/Oval

The attractive design, low weight, and convincing price-performance ratio are just a few of the advantages of our top loaders. These models deliver very good firing results and are the right choice for hobby potters and workshops. The particularly energy-saving refractory insulation and energy efficient backing insulation ensure that a maximum temperature of 1320 °C is reached with low electrical connected loads.



Top loader Top 60

### Standard Equipment

- Heating elements protected in grooves, heating from all around
- Three-layer insulation with light-weight refractory bricks and high-quality, energy-saving backing insulation, up to 60 liters (two-layer insulation from Top 80)
- Thermocouple protected in the kiln wall
- Locking castors for easy movement of the kiln
- Controller with touch operation B500 (5 programs with each 4 segments), controls description see page 42

### Additional Equipment

- See page 11

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions <sup>2</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H			
Top 45/L	1320	Ø 410		340	45	600	890	730	2.9	1-phase	62
Top 45	1320	Ø 410		340	45	600	890	730	3.6	1-phase	62
Top 60/L	1200	Ø 410		460	60	600	890	850	2.9	1-phase	72
Top 60	1320	Ø 410		460	60	600	890	850	3.6	1-phase	72
Top 80	1320	Ø 480		460	80	660	960	860	5.5	3-phase <sup>1</sup>	100
Top 100	1320	Ø 480		570	100	660	960	970	7.0	3-phase	102
Top 130	1320	Ø 590		460	130	780	1080	880	9.0	3-phase	110
Top 140	1320	Ø 550		570	140	750	1040	990	9.0	3-phase	124
Top 160	1320	Ø 590		570	160	780	1080	990	9.0	3-phase	130
Top 190	1320	Ø 590		690	190	780	1080	1110	11.0	3-phase	146
Top 220	1320	930	590	460	220	1120	1050	900	15.0	3-phase	150

<sup>1</sup>Heating only between two phases

<sup>2</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage





## Top Loaders Round/Oval with Increased Connected Load

For use in the professional ceramics workshop, the kilns of the Top ..R series are recommended. These top loaders can be used for regular work with firing temperatures of up to 1290 °C. This makes these kilns an attractively priced alternative for professional ceramists.

The top loaders of the Top ..R series are equipped with an increased connected load and specially designed heating elements. The high electrical connection value enables significantly faster heating. The Top ..R models are ideal for biscuit firing, earthenware, decorative firing, soft porcelain and earthenware. The Top 16/R table model is also ideal for glaze or pattern samples. Alternatively, the chamber kilns heated on five sides can also be used for intensive professional use.



Top loader Top 16/R as a tabletop model

### Standard Equipment

- Like toploaders see page 8
- Increased connected load for quick heat up
- Top 16/R available as a tabletop model without castors

### Additional Equipment

- See page 11

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions <sup>2</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H			
Top 16/R	1320	Ø 290		230	16	490	740	560	2.6	1-phase	32
Top 45/R	1320	Ø 410		340	45	600	890	730	5.5	3-phase <sup>1</sup>	62
Top 60/R	1320	Ø 410		460	60	600	890	850	5.5	3-phase <sup>1</sup>	72
Top 80/R	1320	Ø 480		460	80	660	960	860	7.0	3-phase <sup>1</sup>	100
Top 100/R	1320	Ø 480		570	100	660	960	970	9.0	3-phase	102
Top 140/R	1320	Ø 550		570	140	750	1040	990	11.0	3-phase	124
Top 190/R	1320	Ø 590		690	190	780	1080	1110	13.5	3-phase	146

<sup>1</sup>Heating only between two phases

<sup>2</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage



Bottom heating as additional equipment

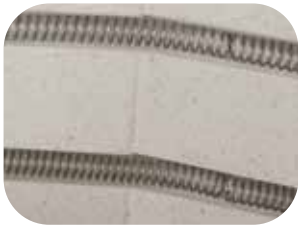


Adjustable lid with quick-release lock



Scan for video tutorial "Installation of Top Loaders"

# Detailed Overview Top Loader Round/Oval



Heating elements protected in grooves



Bypass connection for an exhaust air pipe



Multi-layer insulation



Quick-release lock



Adjustable air inlet



Gas-pressured springs



Removable controller with touch operation



Mobile monitoring with MyNabertherm app



Transport castors

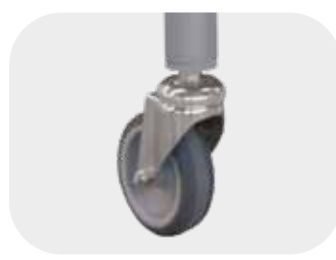


Structured stainless steel housing

## Additional Equipment Top Loaders Round/Oval



Raised base for Top 45 and Top 60



Robust professional castors



Kiln furniture set consisting of ceramic plates and ceramic supports for loading on several levels



Controller with touch operation C540 with 10 programs with each 20 segments



Bottom heating and manual zone control from 80 liters:  
Does your work need a very precise temperature uniformity? In this case we recommend the optional bottom heating for our top loaders from 80 liters. With our controllers, you can control the bottom heating as a second zone. Set your firing curve on the controller as usual. If you find that the temperature uniformity has to be changed from top to bottom, you simply adjust the ratio.





## Top Loaders Rectangular

The rectangular top loaders from Nabertherm combine the benefits of a top loader with the sturdy design of a chamber kiln and are very good suited for professional use. The freely radiating heating elements always ensure perfect firing results. The infinitely adjustable fresh air opening in the bottom and the exhaust air opening on the side ensure good ventilation inside the kiln and allow the kiln to cool faster. Castors ensure easy movement of the kiln.



### Standard Equipment

- Heating elements on support tubes ensure free heat radiation
- Heating from both sides
- Castors
- Sturdy design
- Two-layer refractory insulation and energy saving backing insulation
- Controller with touch operation B500 (5 programs with each 4 segments), controls description see page 42

Top loader HO 70/R

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions <sup>2</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H			
HO 70/L	1200	440	380	420	70	1025	830	830	3.6	1-phase	145
HO 70/R	1320	440	380	420	70	1025	830	830	5.5	3-phase <sup>1</sup>	145
HO 100	1320	430	480	490	100	1015	930	900	8.0	3-phase	160

<sup>1</sup>Heating only between two phases

<sup>2</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage



Heating elements on support tubes ensure uninterrupted heat radiation



Top loader HO 100



Robust professional castors

# Chamber Kilns

All Nabertherm chamber kilns are carefully handcrafted "Made in Germany" using first-class materials. This ensures that you can rely on your kiln for many years to come. The appealing design, including the intuitively operated controller with colored touch display, makes the chamber kilns a real eye-catcher in your workshop. Outstanding firing results thanks to excellent temperature uniformity make every firing process a real experience.

The following equipment applies to all chamber furnaces in this chapter:



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that aluminosilicate wool, also known as "refractory ceramic fiber" (RCF), which is classified and possibly carcinogenic, is not used.



Defined application within the constraints of the operating instructions



Controller with intuitive touch operation



NTLog Basic for Nabertherm controller: recording of process data with USB-flash drive



Freeware NTEdit for convenient program input via Excel™ for Windows™ on the PC



Freeware NTGraph for evaluation and documentation of firings using Excel™ for Windows™ on the PC



MyNabertherm App for online monitoring of the firing on mobile devices for free download



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Chamber kilns with drawer bottom or bogie	NW	20
Chamber kilns, heated from two sides	N 40 E - N 100 E	22
Chamber kilns, heated from three sides	N 140 E - N 280 E	23
Standard equipment chamber kilns		24
Additional equipment chamber kilns		25





## Product Advantages Chamber Kilns



Multi-layer insulation with light-weight refractory bricks and energy-saving backing insulation adapted to the maximum kiln temperature



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that aluminosilicate wool, also known as "refractory ceramic fiber" (RCF), which is classified and possibly carcinogenic, is not used.



Durable light-weight refractory brick insulation inside the kiln ensures clean firing results



Dual-shell housing provides for low temperatures and optimal corrosion protection. Galvanized steel sheets on the sides



Rugged, self-supporting, vaulted arch construction



Door seal „brick on brick“, precisely ingraind by hand to ensure tight sealing



Ergonomic charging height with 780 mm base (chamber kiln N 440 - N 660 = 500 mm)



Solid state relays ensure low-noise heater operation



Protected door contact switch



Manual air inlet sliding damper for optimal air supply during firing and reduced cooling times included in the scope of delivery for chamber kilns from 440 liters



Controller mounted on kiln door and removable for comfortable operation



Semi-automatic air inlet flap for residual drying in chamber kilns up to 300 liters. The flap closes automatically at a set temperature and does not have to be closed manually after the drying phase.



Exhaust air opening in the center back of the kiln roof ensures even extraction of the exhaust air in chamber kilns up to 300 liters



Motorized exhaust air flap in the middle of the kiln roof provides for optimal ventilation of the kiln for chamber kilns from 440 liters

## Chamber Kilns, Heated from Five Sides

First-class craftsmanship, professional design, long service life and excellent temperature uniformity – chamber kilns from 100 liters up to 2200 liters round off the range of kilns for professionals. These kilns have proven their worth for many years, firing porcelain and stoneware and annealing glass, even when tightly stacked and at high working temperatures. You will find these chamber kilns in ceramic workshops, studios, clinics, schools and in private homes. They are recommended for frequent firing, when the kilns are tightly stacked and when excellent temperature uniformity is needed.

The chamber kilns are available for maximum temperatures of 1300 °C or 1340 °C. If the kiln is often fired to its performance limits, we recommend our chamber kilns to 1340 °C. Most chamber kilns are available from stock.



Chamber kiln N 300



Chamber kiln N 440

### Standard Equipment

- Heating elements on support tubes ensure free heat radiation
- Heating from five sides and a special arrangement of the heating elements ensure optimum temperature uniformity
- Scope of delivery includes SiC floor plates to protect the floor heating and provide for safe stacking of the kiln furniture
- Base included in scope of delivery
- Door cover made from structured stainless steel
- Semi-automatic air inlet flap that closes automatically after the drying phase in the firing program for chamber kilns up to 300 liters
- Motorized exhaust air flap in the middle of the kiln roof for optimum ventilation of the kiln with chamber kilns from 440 liters
- Controller with touch operation B500 (5 programs with each 4 segments), controls description see page 42

### Additional Equipment

- See page 25





Ceramic studio of Anette Breu

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions <sup>2</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H <sup>1</sup>			
N 100	1300	400	530	460	100	720	1130	1440	9.0	3-phase	275
N 150	1300	450	530	590	150	770	1130	1570	11.0	3-phase	320
N 200	1300	470	530	780	200	790	1130	1760	15.0	3-phase	375
N 300	1300	550	700	780	300	870	1300	1760	20.0	3-phase	450
N 440	1300	600	750	1000	440	1000	1410	1830	30.0	3-phase	820
N 660	1300	600	1100	1000	660	1000	1750	1830	40.0	3-phase	950
N 1000	1300	800	1000	1250	1000	1390	1760	2000	57.0	3-phase	1800
N 1500	1300	900	1200	1400	1500	1490	1960	2150	75.0	3-phase	2500
N 2200	1300	1000	1400	1600	2200	1590	2160	2350	110.0	3-phase	3100
N 100/H	1340	400	530	460	100	760	1150	1440	11.0	3-phase	325
N 150/H	1340	430	530	620	150	790	1150	1600	15.0	3-phase	380
N 200/H	1340	500	530	720	200	860	1150	1700	20.0	3-phase	430
N 300/H	1340	550	700	780	300	910	1320	1760	27.0	3-phase	550
N 440/H	1340	600	750	1000	440	1000	1410	1830	40.0	3-phase	900
N 660/H	1340	600	1100	1000	660	1000	1750	1830	52.0	3-phase	1250
N 1000/H	1340	800	1000	1250	1000	1390	1760	2000	75.0	3-phase	2320
N 1500/H	1340	900	1200	1400	1500	1490	1960	2150	110.0	3-phase	2700
N 2200/H	1340	1000	1400	1600	2200	1590	2160	2350	140.0	3-phase	3600

<sup>1</sup>Base included

<sup>2</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage



Heating from five sides and a special arrangement of the heating elements ensure optimal temperature uniformity



Semi-automatic air inlet flap for residual drying in chamber kilns up to 300 liters



Scan for video tutorial "Installation of Chamber Kilns"

## Chamber Kilns with Drawer Bottom or Bogie

The chamber kilns in the NW series combine the convincing quality benefits of the proven chamber kilns that are heated from five sides with a special feature. Charging these chamber kilns is much simpler, more ergonomic and also time-saving. With a drawer mechanism in the models up to 300 liters the floor can be easily pulled out. The larger models from 440 liters are designed as shuttle kilns with freely moving bogies. The optimal access in front of the kiln allows for simple and easy charging.

These models are especially suitable for ceramic workshops, studios, clinics and schools. Most kilns are available from stock, even larger models can be delivered within a short time.

The chamber kilns are available for maximum temperatures of 1300 °C or 1340 °C. If the kiln is often fired to its performance limits, we recommend our chamber kilns to 1340 °C.



Chamber kiln NW 300

### Standard Equipment

- Ergonomic loading from three sides
- Heating elements on support tubes ensure free heat radiation
- Heating from five sides and a special arrangement of the heating elements provide for optimal temperature uniformity
- Scope of delivery includes SiC floor plates to protect the floor heating and provide for safe stacking of the kiln furniture
- Door cover made from structured stainless steel
- Semi-automatic air inlet flap that closes automatically after the drying phase in the firing program for chamber kilns up to 300 liters
- Motorized exhaust air flap in the middle of the kiln roof for optimal ventilation of the kiln with chamber kilns from 440 liters
- Controller with touch operation B500 (5 programs with each 4 segments), controls description see page 42



Chamber kiln NW 440

### Additional Equipment

- See page 25





Chamber kilns with a pull-out bogie for ergonomic loading of the firing chamber

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions <sup>1</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H			
NW 150	1300	430	530	620	150	790	1150	1600	11.0	3-phase	325
NW 200	1300	500	530	720	200	860	1150	1700	15.0	3-phase	380
NW 300	1300	550	700	780	300	910	1320	1760	20.0	3-phase	450
NW 440	1300	600	750	1000	450	1070	1410	1830	30.0	3-phase	850
NW 660	1300	600	1100	1000	660	1070	1750	1830	40.0	3-phase	1180
NW 1000	1300	800	1000	1250	1000	1460	1760	2230	57.0	3-phase	2100
NW 150/H	1340	430	530	620	150	790	1150	1600	15.0	3-phase	400
NW 200/H	1340	500	530	720	200	860	1150	1700	20.0	3-phase	460
NW 300/H	1340	550	700	780	300	910	1320	1760	27.0	3-phase	360
NW 440/H	1340	600	750	1000	450	1070	1410	1830	40.0	3-phase	940
NW 660/H	1340	600	1100	1000	660	1070	1750	1830	52.0	3-phase	1310
NW 1000/H	1340	800	1000	1250	1000	1460	1760	2230	75.0	3-phase	2700

<sup>1</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage



Ergonomic loading from three sides



Drawer design for chamber furnaces NW up to 300 liters



Heating from five sides and a special arrangement of the heating elements ensure optimal temperature uniformity

## Chamber Kilns, Heated from Two Sides

Designed as chamber kilns with wide-opening door these models can be easily and clearly loaded. The appealing design and attractive price are convincing arguments for this kiln series. The heating elements are protected in grooves.

The kilns can be used for ceramics and glass or porcelain painting or also for simple fusing works. Most chamber kilns are available from stock. The infinitely adjustable air inlet opening in the door and the exhaust air opening in the roof ensure good ventilation inside the kiln and reduce cooling times.



Chamber kiln N 70 E with base as an accessory

### Standard Equipment

- Heating elements protected in grooves
- Heating from both sides
- Designed as a tabletop model, base available as an accessory
- Infinitely adjustable fresh air inlet
- Scope of delivery includes an option for connecting an exhaust air pipe (80 mm diameter)
- Dual shell housing for low outer temperatures
- Controller with touch operation B500 (5 programs with each 4 segments), controls description see page 42

### Additional Equipment

- See page 25

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions <sup>2</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H <sup>2</sup>			
N 40 E	1300	350	330	350	40	640	800	600	2.9	1-phase	90
N 40 E/R	1300	350	330	350	40	640	800	600	5.5	3-phase <sup>1</sup>	90
N 70 LE	1200	400	380	450	70	690	850	700	2.9	1-phase	120
N 70 E	1300	400	380	450	70	690	850	700	3.6	1-phase	120
N 70 E/R	1300	400	380	450	70	690	850	700	5.5	3-phase <sup>1</sup>	120
N 100 LE	1100	460	440	500	100	750	910	750	5.5	3-phase	150
N 100 E	1300	460	440	500	100	750	910	750	7.0	3-phase	150

<sup>1</sup>Heating only between two phases

<sup>2</sup>Height with base + 700 mm

<sup>3</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage



Controller mounted on kiln door and removable for comfortable operation



Chamber kiln N 40 E as a tabletop model



Two-sided heating with heating elements protected in grooves

## Chamber Kilns, Heated from Three Sides

Due to their good price-performance ratio, the Nabertherm chamber kilns heated from three sides are suitable for use in schools, kindergartens or occupational therapy. The heating elements are protected in grooves. For an intensive, professional use, we recommend our five-side heated chamber kilns.

The dual-shell, back-ventilated housing keeps the housing temperature low. A semi-automatic air inlet flap is included with standard scope of delivery. After the drying phase in the heating program, the flap closes automatically at a chosen temperature. No base flap has to be closed manually. The controller can be removed from the door bracket for convenient operation.



Chamber kiln N 280 E

### Standard Equipment

- Heating elements protected in grooves
- Heating from three sides (both sides and floor)
- Scope of delivery includes 3 ceramic supports and lower shelf to protect the bottom insulation and for safe stacking of the kiln furniture
- Base included in scope of delivery
- Controller with touch operation B500 (5 programs with each 4 segments), controls description see page 42

### Additional Equipment

- See page 25

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions <sup>4</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H <sup>1</sup>			
N 140 LE	1100	450 <sup>2</sup>	580	570 <sup>3</sup>	140	720	1130	1440	6.0	3-phase <sup>5</sup>	275
N 210 LE	1100	500 <sup>2</sup>	580	700 <sup>3</sup>	210	770	1130	1570	9.0	3-phase	320
N 280 LE	1100	520 <sup>2</sup>	580	890 <sup>3</sup>	280	790	1130	1760	9.0	3-phase	375
N 140 E	1300	450 <sup>2</sup>	580	570 <sup>3</sup>	140	720	1130	1440	9.0	3-phase	275
N 210 E	1300	500 <sup>2</sup>	580	700 <sup>3</sup>	210	770	1130	1570	11.0	3-phase	320
N 280 E	1300	520 <sup>2</sup>	580	890 <sup>3</sup>	280	790	1130	1760	15.0	3-phase	375

<sup>1</sup>Base included

<sup>2</sup>Collar width minus 50 mm

<sup>3</sup>Collar height minus 110 mm

<sup>4</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

<sup>5</sup>Heating only between two phases

\*Please see page 46 for more information about supply voltage



Three-sided heating with heating elements protected in grooves



Chamber kiln N 140 E



Exhaust opening for an even extraction of the exhaust air

## Standard Equipment Chamber Kilns

Function	N 40 E - N 100 E	N 140 E - N 280 E	N 100 - NW 300/H	N 440 - NW 1000/H
Catalog page	22	23	18 - 21	18 - 21
Multi-layer insulation with light-weight refractory bricks	●	●	●	●
Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that alumino silicate wool, also known as "refractory ceramic fiber" (RCF), which is classified and possibly carcinogenic, is not used.	●	●	●	●
Rugged, self-supporting, vaulted arch construction	-	●	●	●
Door with durable seal, precisely ground by hand	●	●	●	●
Dual-shell housing, galvanized steel side panels	●	●	●	●
Protected door contact switch	●	●	●	●
Solid state relays ensure low-noise heater operation	●	●	●	●
Removable controller for comfortable operation	●	●	●	●
Air inlet flap closes automatically after residual drying	-	●	●	-
Infinitely adjustable fresh air flap	●	*	*	●
Scope of delivery includes an option for connecting an exhaust air pipe (80 mm diameter)	●	●	●	*
Motorized exhaust air flap	-	○	○	●
Five-sided heating on support tubes	-	-	●	●
Three-sided heating, protected in grooves	-	●	-	-
Two-sided heating, protected in grooves	●	-	-	-
Scope of delivery includes 3 ceramic supports and shelf	-	●	-	-
Scope of delivery includes. SiC floor plate	-	-	●	●
Scope of delivery includes base	○	●	●	●
Door cover made from structured stainless steel	-	-	●	●

- Standard
- Option
- Not available for this kiln range
- \* Already motorized in the standard version





## Additional Equipment Chamber Kilns



Manual zone control to optimize temperature uniformity



Motorized air inlet flap that can be opened and closed in relation to the program



Cooling fan for kilns up to 300 liters to reduce process times



Potential-free contact for switching on a customer side exhaust air system (for chamber kilns N 100 - N 660/H, N 140 E - N 280 E, NW 150 - NW 660/H)



Motorized exhaust air flap



Stainless steel exhaust hood



Door locking kit as set consisting of two door locks with 2 keys (not for chamber kilns N .. E)



Door hinges on the left side (not for chamber kilns N .. E)



Base in special height (not for chamber kilns N 40 E - N 100 E)



Base mounted on castors (not for chamber kilns N .. E)



Charging frame provides for ergonomic loading and unloading in front of the kiln



Kiln furniture



Observation hole in the kiln door, diameter 15 mm (not for chamber kilns N .. E)



Second bogie for NW kilns from 440 liters

# Gas-Fired Kilns

The gas-fired Nabertherm kilns are the right choice if there is no electrical connection available and/or particularly short heating times are crucial. The handcrafted, gas-fired kilns turn every firing process into an event where good firing results are the highlight.

The following equipment applies to all gas-fired kilns in this chapter:



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that alumino silicate wool, also known as “refractory ceramic fiber” (RCF), which is classified and possibly carcinogenic, is not used.



Defined application within the constraints of the operating instructions



Furnace Group	Model	Page
RAKU kiln	RAKU	28
Gas-fired chamber kilns	NB	29

# RAKU Kiln

Raku is an ancient Japanese technique and means joy. The RAKU 100 chamber kiln ensures that you can also experience this joy when firing your individual pieces. The simple and ergonomic loading from the front enables clear placement of the objects to be fired. Even when hot, the kiln door can easily be opened widely so that it faces away from the operator. Of course appropriate protective clothing must still be worn.

The removal of the ceramic art pieces while hot makes the firing process a real event. The subsequent rapid cooling and immersion by covering the material with leaves, straw, shavings, etc. thereby reducing the glaze. Beautiful colors and the famous craquelure on the surface give each work of art its very own character.



## Standard Equipment

- High-quality insulation with low heat-storage capacity for short heat-up times
- Special flame manipulation for good temperature uniformity
- Positioning of the gas burner under the kiln resulting in centralized heat transfer to the charge
- Scope of delivery includes a propane gas burner and a starter set of burning aids
- Door adjustable with an opening angle of approx. 270 °
- Environmentally friendly and durable powder coating of the housing

RAKU kiln 100

Model	Tmax °C	Work space dimensions in mm			Outer dimensions <sup>1</sup> in mm			Max. charging weight in kg	Weight in kg
		w	d	h	W	D	H		
RAKU kiln 100 Burner	1100	350	350	350	800	650	1275	10	75
Power 15 kW									

<sup>1</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request



15 kW propane gas burner mounted under the kiln



Temperature gauge for RAKU kiln 100



Cool down and immerse the material to be burned in leaves, straw or shavings

# Fusing Furnaces

For glass art Nabertherm offers fusing furnaces in different sizes and designs. All fusing furnaces are made in Germany in our factory in Lilienthal using first-class materials. This quality standard prevails through to the excellent results in fusing. The convincing design combined with the intuitively operated controller with colored touch display make the Nabertherm fusing furnaces the perfect partners in the workshop.

The following equipment applies to all fusing furnaces in this chapter:



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that alumino silicate wool, also known as “refractory ceramic fiber” (RCF), which is classified and possibly carcinogenic, is not used.



Defined application within the constraints of the operating instructions



Controller with intuitive touch operation



NTLog Basic for Nabertherm controller: recording of process data with USB-flash drive



Freeware NTEdit for convenient program input via Excel™ for Windows™ on the PC



Freeware NTGraph for evaluation and documentation of firings using Excel™ for Windows™ on the PC



MyNabertherm App for online monitoring of the firing on mobile devices for free download



Furnace Group	Model	Page
Product advantages fusing furnaces		32
Fusing furnaces with movable table	GFM	33
Fusing furnaces with fixed table	GF	34
Additional equipment fusing furnaces		36
Top loader as fusing furnaces	F	37
Glass beads cooling furnace	MF	38

## Product Advantages Fusing Furnaces



Closely arranged roof heating elements protected in quartz glass tubes for direct, even heating of the glass



Level table surface with rugged refractory insulation and marked charge surface



Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that aluminosilicate wool, also known as "refractory ceramic fiber" (RCF), which is classified and possibly carcinogenic, is not used.



Appealing, dual-shell stainless steel housing



Large handles on the right and left sides of the lid



Gas pressure springs for easy opening and closing of the lid



Adjustable, large quick-release fasteners – also suitable when working with gloves



Closable opening for ventilation, for faster cooling and to observe the charge



Rugged base on castors with surface for glass and tools



Ergonomic charging height of 860 mm



Solid state relays ensure low-noise heater operation



Heating switches off when the lid is opened

## Fusing Furnaces with Movable Table

Fusing furnaces in the "GFM" series were developed for special production requirements. The GFM series combines the impressive quality benefits of the GF series with the option of charging the table outside the furnace. The table runs on swivel castors and can thus be moved freely.

The scope of delivery includes a flat table for fusing work; additional tables can be added. An interchangeable table system is especially economical, as one table can be charged while the other is in the furnace. Instead of flat tables, different tables with different heights can be used if the furnace is to be used for higher components, for example.



### Standard Equipment

- Heated lid with fixed frame
- Base included in scope of delivery
- Controller with touch operation C540 (10 programs with each 20 segments), controls description see page 42

### Additional Equipment

- See page 36

GFM 1425 fusing furnace with motorized lid opening

Model	Tmax °C	Inner dimensions in mm			Floor space in m <sup>2</sup>	Outer dimensions <sup>1</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H			
GFM 420	950	1660	950	400	1.57	2230	1390	1460	18	3-phase	620
GFM 520	950	1210	1160	400	1.40	1780	1600	1460	15	3-phase	670
GFM 600	950	2010	1010	400	2.03	2580	1450	1460	22	3-phase	730
GFM 920	950	2110	1160	400	2.44	2680	1600	1460	26	3-phase	990
GFM 1050	950	2310	1210	400	2.79	2880	1650	1460	32	3-phase	1190
GFM 1425	950	2510	1510	400	3.79	3080	1950	1460	32	3-phase	1390

<sup>1</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

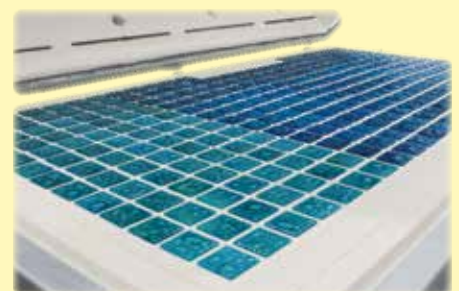
\*Please see page 46 for more information about supply voltage



Glass fusing workpieces from a fusing furnace (Jo Downs Glass Design Ltd.)



Movable table on swivel castors



Level table surface with rugged refractory insulation and marked charge surface



## Fusing Furnaces with Fixed Table

The fusing furnaces in the GF 75 - GF 1425 series are designed for professionals. Closely arranged heating elements protected in quartz glass tubes ensure very good temperature accuracy during fusing or bending on the complete area of the table. All models have an appealing, dual-shell stainless steel housing.

The level table surface made from rugged, durable refractory material and the lid opening with gas pressure springs as support simplify charging of the furnace. The optimized electrical connected load ensures that the glass heats up quickly.



GF 75 fusing furnace



GF 240 fusing furnace

### Standard Equipment

- Heating elements protected in quartz glass tubes
- Controller integrated on the right side of the furnace to save space
- Controller with touch operation C540 (10 programs with each 20 segments), controls description see page 42

### Additional Equipment

- See page 36



GF 380 fusing furnace



GF 920 fusing furnace

Model	Tmax °C	Inner dimensions in mm			Floor space in m <sup>2</sup>	Outer dimensions <sup>4</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H <sup>3</sup>			
GF 75	900	620	620	310	0.38	1170	950	1370	3.6	1-phase <sup>1</sup>	180
GF 75 R	950	620	620	310	0.38	1170	950	1370	5.5	3-phase <sup>1</sup>	180
GF 190 LE	950	1010	620	400	0.62	1460	950	1460	6.0	1-phase <sup>2</sup>	210
GF 190	950	1010	620	400	0.62	1460	950	1460	6.4	3-phase <sup>1</sup>	210
GF 240	950	1010	810	400	0.81	1460	1140	1460	11.0	3-phase	275
GF 380	950	1210	1100	400	1.33	1660	1460	1460	15.0	3-phase	450
GF 420	950	1660	950	400	1.57	2110	1310	1460	18.0	3-phase	500
GF 520	950	1210	1160	400	1.40	1660	1520	1460	15.0	3-phase	550
GF 600	950	2010	1010	400	2.03	2460	1370	1460	22.0	3-phase	600
GF 920	950	2110	1160	400	2.44	2560	1520	1460	26.0	3-phase	850
GF 1050	950	2310	1210	400	2.79	2760	1570	1460	32.0	3-phase	1050
GF 1425	950	2510	1510	400	3.79	2960	1870	1460	32.0	3-phase	1250

<sup>1</sup>Heating only between two phases

<sup>2</sup>Fusing of 32 A if connected to 230 V

<sup>3</sup>Including base

<sup>4</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage



Closely arranged roof heating elements protected in quartz glass tubes



Rugged base on castors with surface for glass and tools



Closable opening for ventilation, for faster cooling and to observe the charge

## Additional Equipment Fusing Furnaces



Observation window in air inlets to observe the glass.



Floor heating provides for even heating of larger objects



Cooling fan for faster cooling with the lid closed



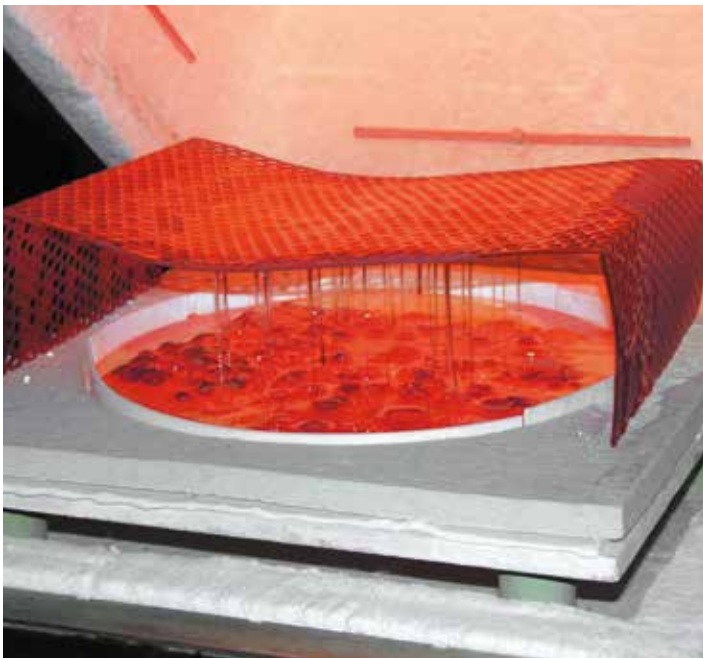
Automatic exhaust air flap for fast cooling after firing



Additional tables to extend the furnace system for GFM models; interchangeable table system to utilize residual heat and reduce cycle times by changing tables while the furnace is still warm.



Table designed as a basin



## Top Loader as Fusing Furnaces

This kiln range is the ideal choice for many fusing applications. The insulation is made from lightweight refractory bricks with protected heating elements in the lid, fusing furnaces F 75 and F 220 have additional side heating.



Fusing furnace F 30



Fusing furnace F 110

### Standard Equipment

- Housing made of textured stainless steel
- Controller mounted on the right side of the kiln with removable holder for comfortable operation
- Insulation made of lightweight refractory bricks for clean firing results
- Lid with adjustable quick-release lock and padlock hasp
- Adjustable lid mechanism
- Long-life lid seal (brick on brick)
- Lid interlock safety switch
- Heating elements in the lid, fusing furnaces F 75 and F 220 have additional side heating
- Solid state relays provide for low-noise operation
- Powerful gas springs support lid opening
- Lockable castors for easy transport of kiln without the need for lifting (F 75 - F 220)
- Top loader F 30 as tabletop model without castors
- Manual-Zone-Regulation for F 220 (lid and sides)
- Controller with touch operation C540 (10 programs with each 20 segments) resp. P570 (50 programs with each 40 segments) for F 220, controls description see page 42

### Additional Equipment

- Higher chassis

Model	Tmax °C	Inner dimensions in mm			Floor space in m <sup>2</sup>	Outer dimensions <sup>2</sup> in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H			
F 30	950	Ø 410			0.13	650	800	500	2.0	1-phase	50
F 75 L	950	750	520	230	0.33	950	880	680	3.6	1-phase	80
F 75	950	750	520	230	0.33	950	880	680	5.5	3-phase	80
F 110 LE	950	930	590	230	0.47	1120	950	680	6.0	1-phase <sup>1</sup>	95
F 110	950	930	590	230	0.47	1120	950	680	7.5	3-phase	115
F 220	950	930	590	460	0.47	1120	950	910	15.0	3-phase	175

<sup>1</sup>Fusing of 32 A if connected to 230 V

<sup>2</sup>External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 46 for more information about supply voltage



Housing made of textured stainless steel



Robust lid construction with two lid brackets



Kiln interior with circular lower side heating

# Glass Beads Cooling Furnace

A high-quality furnace is indispensable for professional glass bead tempering. The MF 5 model is the ideal furnace for cooling large glass beads or glass jewelry. For charging the glass beads, the door is equipped with a window which can be closed with a filler piece when the furnace is used for other applications. The infrared heating prevents direct contact with the heating elements so the glass beads cooling furnace can be safely opened during operation without heating interruption.

With a maximum temperature of 950 °C, this furnace is multifunctional, and can be used for fusing and enameling applications, for decorating and for preheating frits and other materials.



Glass beads cooling furnace MF 5

## Standard Equipment

- Table-top model
- Heating from furnace ceiling, elements protected in quartz glass tubes for safe open-door operation
- Housing made of textured stainless steel
- Solid state relays provide for low-noise operation
- Window with rack for charging glass beads
- Controller with touch operation C540 (10 programs with each 20 segments), controls description see page 42



Model	Tmax °C	Inner dimensions in mm			Volume l	Outer dimensions in mm			Connected load kW	Electrical connection*	Weight in kg
		w	d	h		W	D	H			
MF 5	950	220	240	100	5	485	370	320	1.6	1-phase	15

\*Please see page 46 for more information about supply voltage



Front made of textured stainless steel



Glass beads cooling furnace MF 5



Glass beads

# Installation and Exhaust Air Extraction

## Installation

When the kiln is being installed, it is important that there is a safety gap of 0.5 m between the kiln and flammable materials on all sides and 1.0 m to the ceiling. If the ceiling is lower, heat-resistant insulation must be installed. If non-flammable materials are used for insulation the minimum distance between the kiln may be reduced to 0.20 m at the sides. The kiln must be placed on a non-flammable surface (fire safety class A DIN 4102 – Example: concrete, tiles, glass, aluminum or steel). The floor must be level so that the kiln can stand upright. Kiln and switchgear are not designed to be used outdoors.

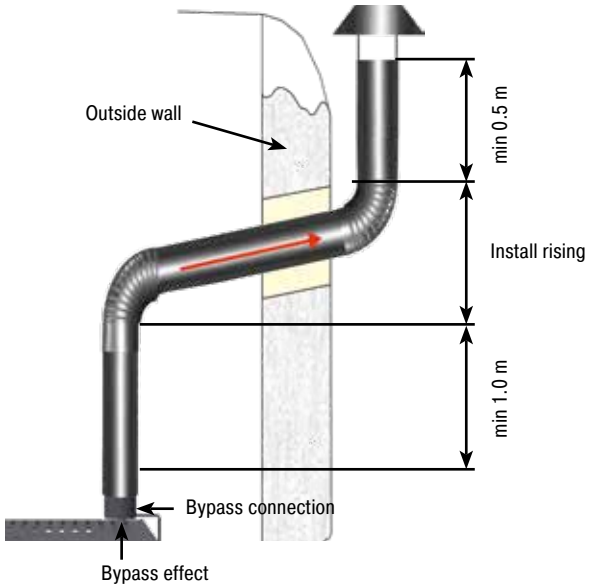


## Exhaust Air Extraction

When ceramics are fired, depending on the quality of the clay and/or glaze, they can emit gases and vapors that are harmful to health. Therefore, exhaust gases must be directed outdoors in a suitable manner. We recommend the connection of an extraction pipe to the kiln to remove the exhaust gases.

An 80 mm diameter zinc-plated steel pipe or stainless steel pipe is suitable for this purpose (up to model N 300/H). The pipe must be installed constantly rising. Sufficient room ventilation is necessary to ensure that fresh air is mixed with the exhaust gases.

A maximum exhaust gas temperature of approx. 200 °C can be assumed for the piping system. There is a risk of burning at the bypass connection and the piping. The wall duct must be made from heatproof material. We recommend that a local ventilation company dimensions the exhaust gas piping.



For models Top .. it should be noted that the exhaust air pipe must be fitted to the bypass connection starting with a rising bend so that the cover can be opened freely.



# Process Control and Documentation





	Page
Nabertherm controller series 500	42
MyNabertherm App for mobile monitoring of process progress	44
Functions of the standard controllers	46
Which controller for which furnaces	47
Process data storage and data input via PC	48



# Nabertherm Controller Series 500

**I AM THE  
CONTROLLER**

I'm the big brother of analog buttons and turning switches. I am the new generation of control and intuitive operation. My skills are highly complex, my operation is simple. I can be touched and speak 24 languages. I'll show you exactly which program is currently running and when it ends.



The controller series 500 impresses with its unique scope of performance and intuitive operation. In combination with the free "MyNabertherm" smartphone app, the operation and monitoring of the furnace is even easier and more powerful than ever before. The operation and programming takes place via a high-contrast, large touch panel, which shows exactly the information that is relevant at the moment.



## Standard Equipment

- Transparent, graphic display of the temperature curves
- Clear presentation of the process data
- 24 operating languages selectable
- Consistent, attractive design
- Easily understandable symbols for many functions
- Precise and accurate temperature control
- User levels
- Program status display with estimated end time and date
- Documentation of the process curves on USB storage medium in .csv file format
- Service information can be read out via USB stick
- Clear presentation
- Plain text display
- Configurable for all furnace families
- Can be parameterized for the different processes



## Highlights

In addition to the well-known and matured controller functions, the new generation offers you some individual highlights. Here is an overview of the most important ones for you:

### Modern Design



Colored display of temperature curves and process data

### Easy Programming



Simple and intuitive program entry via touch panel

### Integrated Help Function



Information on various commands in plain text

### Program Management



Temperature programs can be saved as favorites and in categories

### Segment Player



Detailed overview of process information including setpoint, actual value and switched functions

### Wi-Fi-Capable



Connection with the MyNabertherm app



Intuitive touch screen



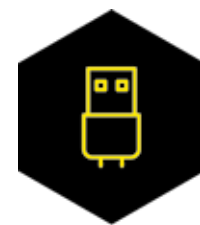
Easy program entry and control



Precise temperature control



User levels



Process documentation on USB

Further information on Nabertherm controllers, process documentation and tutorials on operation can be found on our website: <https://nabertherm.com/en/series-500>



# MyNabertherm App for Mobile Monitoring of Process Progress

MyNabertherm app – the powerful and free digital accessory for Nabertherm 500 Series Controllers. Use the app for convenient online progress monitoring of your Nabertherm furnaces – from your office, while on the way or from wherever you wish. The app always keeps you in the picture. Just like the controller itself, the app is also available in 24 languages.



Convenient monitoring of one or multiple Nabertherm furnaces simultaneously

## App-Functions

- Convenient monitoring of one or multiple Nabertherm furnaces simultaneously
- Clear presentation as a dashboard
- Individual overview of a furnace
- Display of active/inactive furnaces
- Operating status
- Current process data

## Display of Program Progress for Each Furnace

- Graphical representation of the program progress
- Display of furnace name, program name, segment information
- Display of start time, program run time, remaining run time
- Display of additional functions such as fresh-air fan, exhaust air flap, gassing, etc.
- Operating modes as symbol



Display of program progress for each furnace

## Push Notifications in Case of Malfunctions and at Program End

- Push notification on the lock screen
- Display of malfunctions with an associated description in the individual overview and in a message list

## Contact with Service Possible

- Stored furnace data facilitate rapid support for you

## Requirements

- Connection of the furnace to the Internet via the customer's Wi-Fi
- For mobile devices with Android (from version 9) or IOS (from version 13)



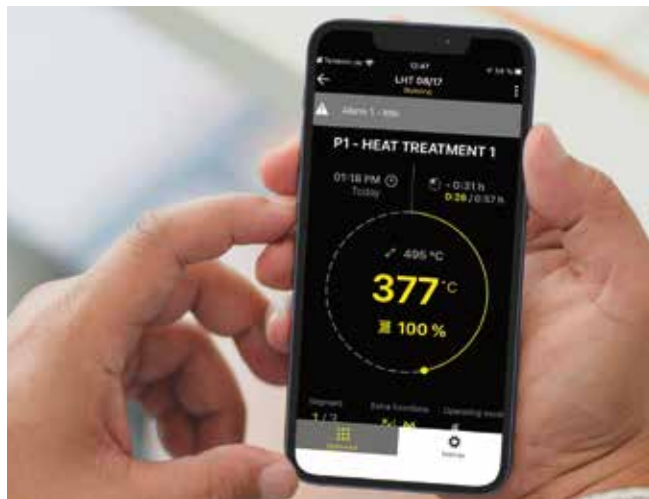
Easy to contact



Monitoring of Nabertherm furnaces with 500 series touch panel controller for Arts & Crafts, laboratory, dental, thermal process technology, advanced materials and foundry applications.



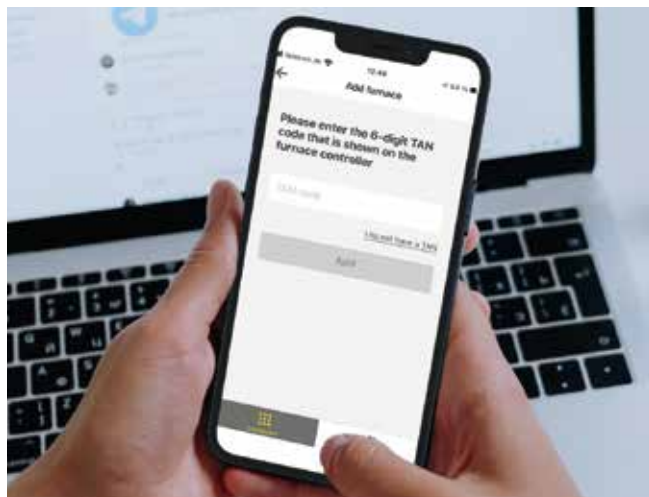
Available in 24 languages



Push notifications in case of malfunctions



Clear contextual menu



Any addition of Nabertherm furnaces

Everything on display in the new Nabertherm app for the new controller series 500. Get the most out of your furnace with our app for iOS and Android. Don't hesitate to download it now.



## Functions of the Standard Controllers

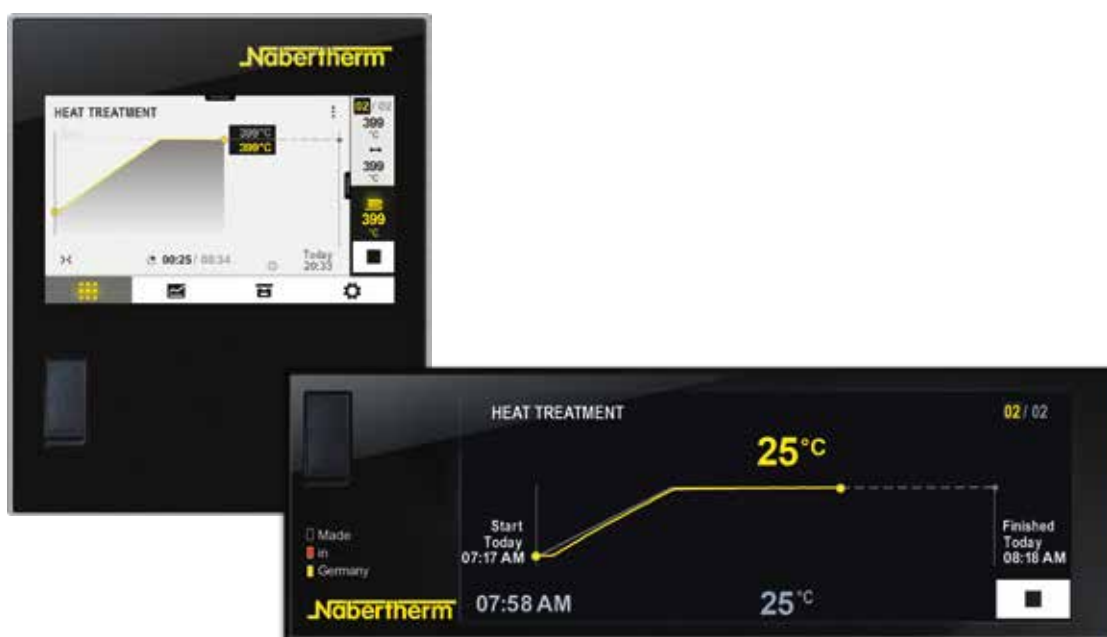
	R7	3216	3208	B500/ B510	C540/ C550	P570/ P580	3508	3504	H500	H1700	H3700	NCC
Number of programs	1	1		5	10	50	1/10/ 25/50 <sup>3</sup>	1/10/ 25/50 <sup>3</sup>	20	20	20	100
Segments	1	8		4	20	40	500 <sup>3</sup>	500 <sup>3</sup>	20	20	20	20
Extra functions (e. g. fan or autom. flaps) maximum				2	2	2-6	0-4 <sup>3</sup>	2-8 <sup>3</sup>	3 <sup>3</sup>	6/2 <sup>3</sup>	8/2 <sup>3</sup>	16/4 <sup>3</sup>
Maximum number of control zones	1	1	1	1	1	3	2 <sup>1,2</sup>	2 <sup>1,2</sup>	1-3 <sup>3</sup>	8	8	8
Drive of manual zone regulation				●	●	●						
Charge control/bath control						●	○	○	○	○	○	○
Auto tune		●	●	●	●	●	●	●				
Real-time clock				●	●	●			●	●	●	●
Graphic color display				●	●	●			4" 7"	7"	12"	22"
Graphic display of temperature curves (program sequence)												
Status messages in clear text			●	●	●	●	●	●	●	●	●	●
Data entry via touchpanel				●	●	●			●	●	●	
Entering program names (i.e. "Sintering")				●	●	●			●	●	●	
Keypad lock				●	●	●	○	○				
User levels				●	●	●	●	●	○	○	○	●
Skip-button for segment jump				●	●	●			●	●	●	●
Program entry in steps of 1 °C or 1 min.	●	●	●	●	●	●	●	●	●	●	●	●
Start time configurable (e. g. to use night power rates)				●	●	●	●	●	●	●	●	●
Switch-over °C/°F	○	○	○	●	●	●	○	○	●	● <sup>3</sup>	● <sup>3</sup>	● <sup>3</sup>
kWh meter				●	●	●						
Operating hour counter				●	●	●			●	●	●	●
Set point output			○	●	●	●	○	○		○	○	○
NTLog Comfort for HiProSystems: recording of process data on an external storage medium									○	○	○	
NTLog Basic for Nabertherm controller: recording of process data with USB-flash drive				●	●	●						
Interface for VCD software				○	○	○	○	○				
Malfunction memory				●	●	●			●	●	●	●
Number of selectable languages				24	24	24						
Wi-Fi-capable („MyNabertherm“ app)				●	●	●						

<sup>1</sup> Not for melt bath control

<sup>2</sup> Control of additional separate slave regulators possible

<sup>3</sup> Depending on the design

● Standard  
○ Option



### Mains Voltages for Nabertherm Furnaces

1-phase: all furnaces are available for mains voltages from 110 V - 240 V at 50 or 60 Hz.

3-phase: all furnaces are available for mains voltages from 200 V - 240 V or 380 V - 480 V, at 50 or 60 Hz.

The connecting rates in the catalog refer to the standard furnace with 400 V (3/N/PE) respectively 230 V (1/N/PE).

## Which Controller for Which Furnaces



	Top 45 - Top 220	Top 16/R - Top 190/R	HO 70.. - HO 100	N 100 - N 2200/H	NW 150 - NW 1000/H	N 40 E - N 100 E	N 140 E - N 280 E	NB 150 - NB 600	GFM 420 - GFM 1425	GF 75 - GF 1425	F 30 - F 220	MF 5
Catalog page	8	9	13	18-19	20-21	22	23	29	33	34-35	37	38
<b>Controller</b>												
B500	●	●	●	●	●	●	●	●				
C540	○	○	○	○	○	○	○	○	●	●	●	●
P570				○	○	○	○	○	○	○		○



# Process Data Storage and Data Input via PC



There are various options for evaluation and data input the processes for optimal process documentation and data storage. The following options are suitable for data storage when using the standard controllers.

## Data Storing of Nabertherm Controllers with NTLog Basic

NTLog Basic allows for recording of process data of the connected Nabertherm Controller (B500, B510, C540, C550, P570, P580) on a USB stick. The process documentation with NTLog Basic requires no additional thermocouples or sensors. Only data recorded which are available in the controller. The data stored on the USB stick (up to 130,000 data records, format CSV) can afterwards be evaluated on the PC either via NTGraph or a spreadsheet software used by the customer (e.g. Excel™ for MS Windows™). For protection against accidental data manipulation the generated data records contain checksums.

## Visualization with NTGraph for MS Windows™ for Single-Zone Controlled Furnaces

The process data from NTLog can be visualized either using the customer's own spreadsheet program (e.g. Excel™ for MS Windows™) or NTGraph for MS Windows™ (Freeware). With NTGraph Nabertherm provides for an additional user-friendly tool free of charge for the visualization of the data generated by NTLog. Prerequisite for its use is the installation of the program Excel™ for MS Windows™ (from version 2003). After data import presentation as diagram, table or report can be chosen. The design (color, scaling, reference labels) can be adapted by using prepared sets. NTGraph is available in eight languages (DE/EN/FR/ES/IT/CN/RU/PT). In addition, selected texts can be generated in other languages.

## Software NTEdit for MS Windows™ for Entering Programs on the PC

By using the software NTEdit for MS Windows™ (Freeware) the input of the programs becomes clearer and thus easier. The program can be entered on customers PC and then be imported into the controller (B500, B510, C540, C550, P570, P580) with a USB stick. The display of the set curve is tabular or graphical. The program import in NTEdit is also possible. With NTEdit Nabertherm provides a user-friendly free tool. A prerequisite for the use is the client installation of Excel™ for MS Windows™ (from version 2007). NTEdit is available in eight languages (DE/EN/FR/ES/IT/CN/RU/PT).



NTGraph, a freeware for the easy-to-read analysis of recorded data using Excel™ for MS Windows™



Recording of process data of the connected controller via USB stick



Process input via the NTEdit software (freeware) for MS Windows™

## Process Data Storage VCD-software for visualization, control and documentation

Documentation and reproducibility are more and more important for quality assurance. The powerful VCD software represents an optimal solution for single multi furnace systems as well as charg documentation on the basis of Nabertherm controllers.

The VCD software is used to record process data of the series 500 and series 400 as well as various further Nabertherm controllers. Up to 400 different heat treatment programs can be stored. The controllers are started and stopped via the software at a PC. The process is documented and archived accordingly. The data display can be carried-out in a diagram or as data table. Even a transfer of process data to Excel™ for MS Windows™ (.csv format \*) or the generation of reports in PDF format is possible.



Example lay-out with 3 furnaces

### Features

- Available for controllers series 500 - B500/B510/C540/C550/P570/P580, series 400 - B400/B410/C440/C450/P470/P480, Eurotherm 3504 and various further Nabertherm controllers
- Suitable for operating systems Microsoft Windows 7/8/10/11
- Simple installation
- Setting, Archiving and print of programs and graphics
- Operation of controllers via PC
- Archiving of process curves from up to 16 furnaces (also multi-zone controlled)
- Redundant saving of archives on a server drive
- Higher security level due to binary data storage
- Free input of charge date with comfortable search function
- Possibility to evaluate data, files exportable to Excel™ for MS Windows™
- Generation of a PDF-report
- 24 languages selectable

### Extension Package 1 for display of an additional temperature measuring point, independant of the furnace controls

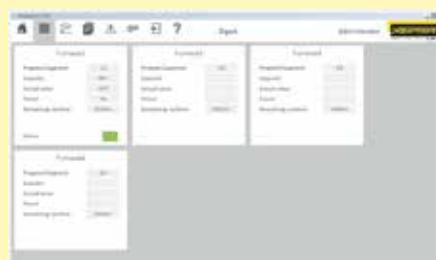
- Connection of an independent thermocouple, type S, N or K with temperature display on a supplied C6D display, e. g. for documentation of charge temperature
- Conversion and transmission of measured values to the VCD software
- For data evaluation, please see VCD-software features
- Display of measured temperature directly on the extension package

### Extension Package 2 for the connection of up to three, six or nine measuring point, independant of the furnace controls

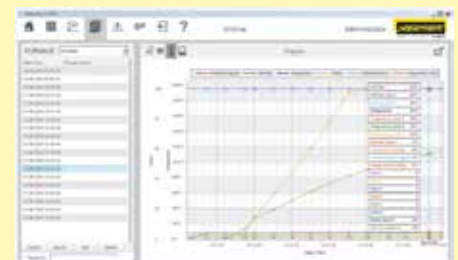
- Connection of three thermocouples, type K, S, N or B to the included connecting box
- Possible extension of up to two or three connecting boxes with up to nine measuring points
- Conversion and transmission of measured values to the VCD software
- Data evaluation, see VCD features



VCD Software for Control, Visualisation and Documentation



Graphic display of main overview (version with 4 furnaces)



Graphic display of process curve





## Spare Parts and Customer Service — Our Service Makes the Difference

For many years the name **Nabertherm** has been standing for top quality and durability in furnace manufacturing. To secure this position for the future as well, Nabertherm offers not only a first-class spare parts service, but also excellent customer service for our customers. Benefit from more than 70 years of experience in furnace construction.

In addition to our highly qualified service technicians on site, our service specialists in Lilienthal are also available to answer your questions about your furnace. We take care of your service needs to keep your furnace always up and running. In addition to spare parts and repairs, maintenance and safety checks as well as temperature uniformity measurements are part of our service portfolio. Our range of services also includes the modernization of older furnace systems or new linings.

**The needs of our customers always have highest priority!**



- Very fast spare parts supply, many standard spare parts in stock
- Worldwide customer service on site with its own service points in the largest markets
- International service network with long-term partners
- Highly qualified customer service team for quick and reliable repair of your furnace
- Commissioning of complex furnace systems
- Customer training in function and operation of the system
- Temperature uniformity measurements, also according to standards like AMS2750F (NADCAP)
- Competent service team for fast help on the phone
- Safe teleservice for systems with PLC controls via modem, ISDN or a secured VPN line
- Preventive maintenance to ensure that your furnace is ready for use
- Modernization or relining of older furnace systems

### Contact us:

Spare parts



[spares@nabertherm.de](mailto:spares@nabertherm.de)



+49 (4298) 922-474

Customer service



[service@nabertherm.de](mailto:service@nabertherm.de)



+49 (4298) 922-333



**The whole World of Nabertherm: [www.nabertherm.com](http://www.nabertherm.com)**

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In addition to current information and exhibition dates, there is of course the possibility of direct contact or an authorized dealer from our worldwide dealer network.

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## Headquarters

**Nabertherm GmbH**  
Bahnhofstr. 20  
28865 Lilienthal, Germany  
Tel +49 4298 922 0  
contact@nabertherm.de

## Sales Organisation

**China**  
Nabertherm Ltd. (Shanghai)  
No. 158, Lane 150, Pingbei Road, Minhang District  
201109 Shanghai, China  
Tel +86 21 64902960  
contact@nabertherm-cn.com

**France**  
Nabertherm SARL  
20, Rue du Cap Vert  
21800 Quetigny, France  
Tel +33 6 08318554  
contact@nabertherm.fr

**Great Britain**  
Nabertherm Ltd., United Kingdom  
Tel +44 7508 015919  
contact@nabertherm.com

**Italy**  
Nabertherm Italia  
via Trento N° 17  
50139 Florence, Italy  
Tel +39 348 3820278  
contact@nabertherm.it

**Switzerland**  
Nabertherm Schweiz AG  
Altgraben 31 Nord  
4624 Härkingen, Switzerland  
Tel +41 62 209 6070  
contact@nabertherm.ch

**Benelux**  
Nabertherm Benelux, The Netherlands  
Tel +31 6 284 00080  
contact@nabertherm.com

**Spain**  
Nabertherm España  
c/Marti i Julià, 8 Bajos 7ª  
08940 Cornellà de Llobregat, Spain  
Tel +34 93 4744716  
contact@nabertherm.es

**USA**  
Nabertherm Inc.  
64 Reads Way  
New Castle, DE 19720, USA  
Tel +1 302 322 3665  
contact@nabertherm.com



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