

Arts & Crafts  
**Nabertherm**

Kilns  
for Workshop  
and Hobby



Handcrafted in Germany  
[nabertherm.com](http://nabertherm.com)

# Ceramics Creates Passion. Trust in Nabertherm.



Nabertherm kilns are the best choice for hobby, workshop and professional use. They are all meticulously handcrafted in Germany using the best materials available. Our business is family owned and has over 75 years of kiln manufacturing experience. Moreover, we ensure that our planet's precious resources are used sustainably to produce top-quality and reliable partners for your work.

Our kilns are characterized by:

- Excellent firing results
- Sustainability
- Durability
- Special ergonomics
- Reliability
- Made in Germany
- Energy efficiency and economy
- Innovation
- 36 months warranty

With Nabertherm, you can be sure of quality, safety and excellent firing results! And with our long-standing network of partners throughout the world, you can rely on specialized customer service when you need it.



“For many years, the name Nabertherm has been standing for top quality and durability in kiln manufacturing. Benefit from more than 75 years of experience in kiln construction!

All the best and enjoy your kiln!“

Timm Grotheer,  
CEO Nabertherm Group



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# History of Nabertherm Kilns

The name Nabertherm stands for the highest quality and durability in kiln construction and kiln engineering. Our family-owned company has more than 75 years of kiln manufacturing experience.

**Nabertherm - Tradition meets innovation in kiln engineering!**



Founder  
Conrad Naber



Hobby kiln Hobby 70 from 1982



Top loader Top 60 from 2003

**1947**

Introduction  
of Naber kilns  
as the first  
product line

**1954**

Introduction of  
the new hobby  
kiln series HO

**2003**

Further development  
of chamber kilns

Company  
founded by  
Conrad Naber  
in Bremen

**1949**

Relocation of  
the company to  
Lilienthal

**1982**

Introduction of the round  
top loader series

**2006**



Model 14/S from 1949



Chamber kiln N 200 from 2006



Chamber kiln NW 300 from 2012



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Top loader Top 100 from 2015



Top loader HO 100 from 2018



Top loader Top 220 from 2024



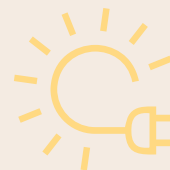
**2012**

New controller series and design change to housing shell made from structured stainless steel

**2018**

Introduction of the controller series with touch operation 500 and the "MyNabertherm" app

**2024**



Introduction of the NW series with drawer design for easy and ergonomic loading and unloading

**2015**

Relaunch of the HO and TOP series with energy-efficient insulation

**2021**

Nabertherm Goes Solar

Our kilns combine optimal energy efficiency and deliver excellent firing results. With the "Solar Mode" on the controller, electricity from PV systems can be utilized.



Chamber kiln N 200 from 2015



Chamber kiln NE 70 from 2021



Chamber kiln NW 300 from 2024

# Ceramics Creates Passion. Trust in Nabertherm.



## Facts

- Manufacturing of Arts & Crafts kilns, laboratory and dental furnaces since 1947
- Production site in Lilienthal/Bremen – Made in Germany
- 600 employees worldwide
- 150.000 customers in more than 100 countries
- Wide range of kilns
- One of the largest R&D-departments in the kiln industry
- High vertical integration

## Global sales and service

- Manufacturing only in Germany
- Decentralized sales and service close to our customers
- Own sales organization and long term sales partners in all important world markets
- Individual on-site customer service and consultation
- Secured spare parts supply, many spare parts available from stock
- More information see page 65

## Benchmarks in quality and reliability!



Model 14/S from 1949





Handcrafted  
in Germany

Emotion, Tradition and Innovation





A woman with blonde, wavy hair is leaning over a large, cylindrical, light-colored kiln. She is wearing a white, short-sleeved, button-down cardigan over a white top and blue jeans. She is carefully placing a piece of light-colored pottery into the kiln. The kiln has a dark metal rim and a dark metal handle on the right side. Inside the kiln, there are several other pieces of pottery, including a bowl and some smaller items. The background shows a pottery studio with shelves filled with various pottery items, including plates, bowls, and vases. A yellow circular graphic is in the top right corner with the text "Our Top Loaders".

Our Top  
Loaders

Our top loaders are the best choice for your hobby and workshop. These kilns impress with their elegant, appealing design, very high-quality workmanship and an outstanding price-performance ratio. The stainless steel housing not only gives the kiln a modern look, but also stands for robustness and durability. The intuitive controller with colored touch display makes operation very simple. Your Nabertherm top loader is not just a kiln, but a reliable and faithful partner in your workshop. And because we know how important every firing is for you, we developed the free MyNabertherm app. It allows you to monitor your firings on mobile devices and track the firing progress at all times.

**With our top loaders you can be sure of top performance and quality. Experience our top of the line firing technology and realize your creative projects with 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 aluminosilicate wool, also known as “refractory ceramic fiber” (RCF), which is classified and possibly carcinogenic, is not used.



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



Optimized insulation construction for a perfect balance between the best possible energy consumption and short cycle times



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



Controller can be switched to “Solar Mode” to use electricity from PV systems with and without battery



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



Defined application within the constraints of the operating instructions

“When it comes durability, a Nabertherm top loader is unbeatable.”

Marta G. Palacios,  
[ohyokoceramics.com](http://ohyokoceramics.com)







# Optimal Energy Efficiency and Excellent Firing Results

Our top loaders have a long and economical life.

Each kiln is handcrafted with love in our factory in Germany. We use the highest quality materials we can source in every aspect of the kiln. The kiln uses energy efficiently, whilst giving you the best firing results.

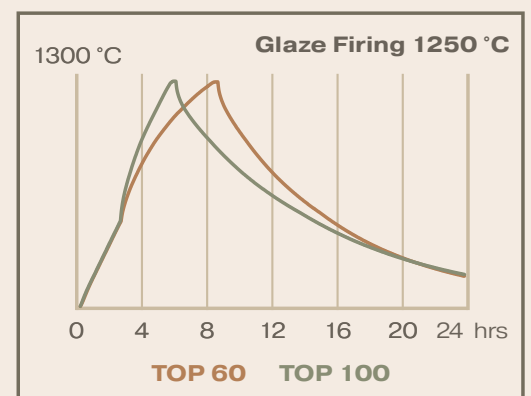
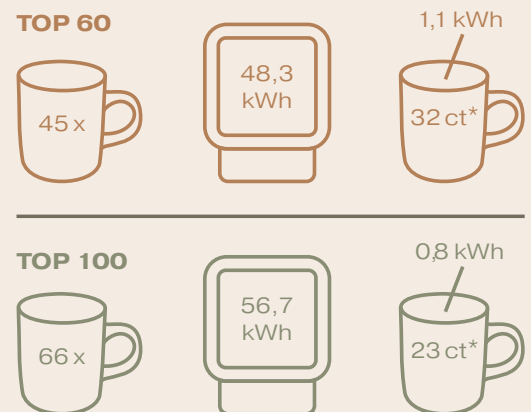
You can rely on Nabertherm:

- Optimal insulation - thanks to our proven insulation concept, we have been setting standards in terms of efficiency for years
- Shorter cool down times than most comparable models – you can fire faster and more efficiently
- Our unique controller turns every program setting into an intuitive experience
- By installing the finest materials, we can minimise the energy demand
- Excellent temperature uniformity for optimal and reliable firing results

**That's what we call sustainability!**



**Costs for bisque and glaze firing using our models TOP 60 and TOP 100 as examples:**

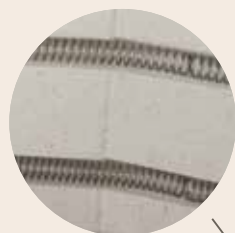


\*Bisque firing 950 °C, glaze firing 1250 °C. Charge weight incl. kiln furniture: Top 60 - 18 kg, Top 100 - 30 kg. Calculated energy price: 0.30 €/kWh.

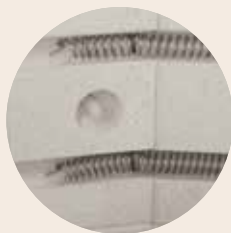


# Detailed Overview

Ceramics Creates Passion.  
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Heating elements,  
protected in grooves



Thermocouple  
type S protected in  
the insulation



Low noise  
electronic relays



Bypass connector  
for an exhaust air  
pipe



Gas-pressured  
springs as lid lifter



Multi-layer insulation



Automatic lid lock



Quick-release lock



Removable  
controller with  
touch operation  
(see page 58)



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



Robust  
professional  
castors



Structured stainless  
steel housing



Mobile monitoring  
with the  
MyNabertherm app



# Additional Equipment



Raised frame for Top 45 and Top 60



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



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 up to 1320 °C

Discover the fascinating world of Nabertherm top loaders – they combine appealing design, easy handling and an unbeatable price-performance ratio. For you this means not only excellent firing results, but also the perfect support for your creative passion and projects in the workshop.

We are sure you know the feeling of opening your kiln after firing and admiring the results of your work with excitement. Our top loaders will not let you down. The particularly easy-to-use controller reliably regulates your firing programs. Our top loaders are not simply kilns, they are a reliable partner for your everyday pottery work and support you in realizing your creative ideas.

## Insulation

Our top loaders are equipped with energy-efficient refractory insulation inside the chamber and microporous rear insulation that allows you to

reach a top temperature of 1320 °C with minimum energy consumption.

- Three layers of high-quality 15 mm microporous rear insulation for top loaders up to 60 liters to ensure that you reach your firing temperature reliably
- Two layers of high-quality 20 mm microporous rear insulation for top loaders from 80 liters for a well-balanced ratio between energy-saving heating and shorter cooling times for the kiln
- Automatic lid lock upon opening for additional safety

## Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**Treat yourself to something special for your hand-crafted works of art!**

“Each time I open the kiln, I’m just as excited as I was after the first firing.”

Marta G. Palacios,  
[ohyokoceramics.com](http://ohyokoceramics.com)



Additional  
equipment  
see page 13

Top loader Top 45



All-round heating elements, protected in grooves



Three layers insulation for top loaders up to 60 liters



Two layers insulation for top loaders from 80 liters

| Model    | Tmax<br>°C | Inner dimensions in mm |     |     | Volume in<br>l | Outer dimensions <sup>2</sup> in mm |      |      | Connected load <sup>3</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|----------|------------|------------------------|-----|-----|----------------|-------------------------------------|------|------|-----------------------------------|---------------------------|-----------------|
|          |            | w                      | d   | h   |                | W                                   | D    | H    |                                   |                           |                 |
| Top 45/L | 1320       | Ø 410                  |     | 340 | 45             | 600                                 | 890  | 790  | 2.9                               | 1-phase                   | 66              |
| Top 45   | 1320       | Ø 410                  |     | 340 | 45             | 600                                 | 890  | 790  | 3.6                               | 1-phase                   | 66              |
| Top 60/L | 1200       | Ø 410                  |     | 450 | 60             | 600                                 | 890  | 900  | 2.9                               | 1-phase                   | 74              |
| Top 60   | 1320       | Ø 410                  |     | 450 | 60             | 600                                 | 890  | 900  | 3.6                               | 1-phase                   | 74              |
| Top 80   | 1320       | Ø 480                  |     | 450 | 80             | 660                                 | 960  | 910  | 5.5                               | 3-phase <sup>1</sup>      | 88              |
| Top 100  | 1320       | Ø 480                  |     | 570 | 100            | 660                                 | 960  | 1030 | 7.0                               | 3-phase                   | 97              |
| Top 130  | 1320       | Ø 590                  |     | 450 | 130            | 780                                 | 1080 | 930  | 9.0                               | 3-phase                   | 115             |
| Top 140  | 1320       | Ø 550                  |     | 570 | 140            | 750                                 | 1040 | 1050 | 9.0                               | 3-phase                   | 117             |
| Top 160  | 1320       | Ø 590                  |     | 570 | 160            | 780                                 | 1080 | 1050 | 9.0                               | 3-phase                   | 122             |
| Top 190  | 1320       | Ø 590                  |     | 680 | 190            | 780                                 | 1080 | 1160 | 11.0                              | 3-phase                   | 135             |
| Top 220  | 1320       | 930                    | 590 | 450 | 220            | 1120                                | 1050 | 950  | 15.0                              | 3-phase                   | 154             |

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

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

<sup>3</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

\*Please see page 61 for more information about supply voltage

# Top Loaders up to 1320 °C with increased connected load

Additional  
equipment  
see page 13

With their increased connected load and specially designed heating elements, our kilns in the Top .. R range are ideal for frequent use at high temperatures up to 1290 °C. They therefore represent an attractively priced alternative to our chamber kilns that meets professional requirements.

The increased connected load enables the kilns to heat up much faster. Regardless whether for biscuit firing, earthenware, overglaze firing, soft-paste porcelain or stoneware – our Top .. R kilns are designed ideally to meet your creative needs. The compact tabletop model Top 16/R even offers the option of perfecting glaze or sample specimens on a laboratory scale. Alternatively, for permanent professional use, we recommend our chamber kilns with five side heating.

## Standard equipment

- Like top loaders, see page 14

**Let your art shine in a new dimension!**



Top loader Top 16/R as a tabletop model



Top loader Top 100/R





Increased connected load for frequent high working temperatures



Robust heating elements with increased connected load to heat your kiln faster



Scan for video tutorial "Installation of Top Loaders"



Nabertherm's Top Loaders are Simply Perfect.

| Model     | Tmax<br>°C | Inner dimensions in mm |   |     | Volume in<br>l | Outer dimensions <sup>2</sup> in mm |      |      | Connected load <sup>3</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|-----------|------------|------------------------|---|-----|----------------|-------------------------------------|------|------|-----------------------------------|---------------------------|-----------------|
|           |            | w                      | d | h   |                | W                                   | D    | H    |                                   |                           |                 |
| Top 16/R  | 1320       | Ø 290                  |   | 225 | 16             | 490                                 | 740  | 555  | 2.6                               | 1-phase                   | 40              |
| Top 45/R  | 1320       | Ø 410                  |   | 340 | 45             | 600                                 | 890  | 790  | 5.5                               | 3-phase <sup>1</sup>      | 66              |
| Top 60/R  | 1320       | Ø 410                  |   | 450 | 60             | 600                                 | 890  | 900  | 5.5                               | 3-phase <sup>1</sup>      | 74              |
| Top 80/R  | 1320       | Ø 480                  |   | 450 | 80             | 660                                 | 960  | 910  | 7.0                               | 3-phase <sup>1</sup>      | 88              |
| Top 100/R | 1320       | Ø 480                  |   | 570 | 100            | 660                                 | 960  | 1030 | 9.0                               | 3-phase                   | 97              |
| Top 140/R | 1320       | Ø 550                  |   | 570 | 140            | 750                                 | 1040 | 1050 | 11.0                              | 3-phase                   | 117             |
| Top 190/R | 1320       | Ø 590                  |   | 680 | 190            | 780                                 | 1080 | 1160 | 13.5                              | 3-phase                   | 135             |

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

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

<sup>3</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

\*Please see page 61 for more information about supply voltage



Our  
Chamber  
Kilns



Our chamber kilns are carefully handcrafted using high quality materials and are truly worthy of the “Made in Germany” label. This quality level ensures reliable performance for many years, making our chamber kilns the ideal partner for everyday use. Their appealing design, including the intuitive color touch screen controller, gives our chamber kilns an aesthetic presence in your workshop. Excellent temperature uniformity delivers outstanding results that turn every firing into a true experience. We are well aware of how important every firing is for you, so we developed the free MyNabertherm app. This allows you to monitor your firings on mobile devices and track firing progress at all times.

**The following equipment applies to all chamber 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.



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



Optimized insulation construction for a perfect balance between the best possible energy consumption and short cycle times



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



Controller can be switched to “Solar Mode” to use electricity from PV systems with and without battery



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



Defined application within the constraints of the operating instructions

“I trust my Nabertherm kiln.  
It fires quickly, reliably and  
economically.”

Katharina Pasternak,  
*leelahloves.de*





# Detailed Overview

Ceramics Creates Passion.  
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Multi-layer refractory insulation with light-weight refractory bricks



Door seal "brick on brick"



Removable controller with touch operation (see page 58)



Mobile monitoring with the MyNabertherm app



Motorized exhaust air flap for chamber kilns from 440 liters



Exhaust air opening for chamber kilns up to 300 liters



Dual shell housing provides for low temperatures



Low noise electronic relays



Manual air inlet sliding damper for chamber kilns from 440 liters



Semi-motorized air inlet flap for chamber kilns up to 300 liters



Protected door contact switch



# Additional Equipment

Multiple-zone control to optimize temperature uniformity in the work space



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



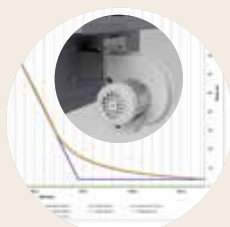
Cooling fan incl. motorized air inlet flap for kilns up to 300 liters to reduce process times



Switchable contact for switching on a customer site exhaust air extraction fan (for chamber kilns N 100 - N 660/H, NE 140 - NE 280, NW 150 - NW 660/H)



Controlled cooling, including cooling fan from 440 liters to reduce process times



Stainless steel exhaust hood



Door locking kit as set consisting of two door locks with 2 keys (not for chamber kilns NE 40 - NE 100)



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



Base in special height (not for chamber kilns NE ..)



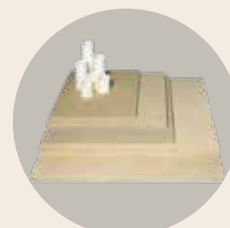
Base mounted on castors (not for chamber kilns N 100 – N 300/H)



Second bogie for NW kilns from 440 liters



Kiln furniture



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



# Chamber Kilns up to 1300 °C

## heated from five sides

Welcome to the world of professional firing. With their high-quality workmanship, attractive design, long service life and excellent temperature uniformity, our kilns in the N range set new standards. Our chamber kilns from 100 to 660 liters, heated from five sides, have a maximum firing temperature of 1300 °C and are the creative companion for arts and crafts professionals.

These chamber kilns have proven their worth for many years, firing stoneware, porcelain and glass, even when tightly stacked and at high working temperatures. No matter whether you are working in your ceramic workshop, a studio, a hospital, a school or in the private sphere – our chamber kilns will meet your needs. They are a reliable partner even if you pack your kiln tightly and fire it frequently, guaranteeing excellent temperature uniformity.

### Standard equipment

- Heating elements on support tubes ensure free heat radiation

- Heating from five sides and a special arrangement of the heating elements ensure excellent temperature uniformity
- SiC shelves to protect the floor heating and provide a level setting surface
- Frame
- Door cover made from structured stainless steel
- Semi-motorized air inlet flap that closes automatically after the drying phase in the heating program for chamber kilns up to 300 liters
- Motor-driven exhaust air flap in the middle of the kiln roof for optimum ventilation of the kiln chamber for chamber kilns from 440 liters

### Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**Our chamber kilns are more than just kilns – they represent inspiration and passion for your unique projects!**



Chamber kiln N 300

Additional  
equipment  
see page 21



For Eternity.





„Craftsmanship  
for happiness.“

Tanja Möwis,  
*bremen-keramik.de*



Heating from five sides on support tubes and a special arrangement of the heating elements ensure excellent temperature uniformity



SiC shelves to protect the floor heating and provide a level setting surface



Durable refractory insulation ensures clean firing results

| Model | Tmax<br>°C | Inner dimensions in mm |      |      | Volume in<br>l | Outer dimensions <sup>2</sup> in mm |      |                | Connected load <sup>3</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|-------|------------|------------------------|------|------|----------------|-------------------------------------|------|----------------|-----------------------------------|---------------------------|-----------------|
|       |            | w                      | d    | h    |                | W                                   | D    | H <sup>1</sup> |                                   |                           |                 |
| N 100 | 1300       | 400                    | 530  | 460  | 100            | 710                                 | 1130 | 1440           | 9                                 | 3-phase                   | 280             |
| N 150 | 1300       | 450                    | 530  | 590  | 150            | 760                                 | 1130 | 1570           | 11                                | 3-phase                   | 320             |
| N 200 | 1300       | 470                    | 530  | 780  | 200            | 790                                 | 1130 | 1760           | 15                                | 3-phase                   | 380             |
| N 300 | 1300       | 550                    | 700  | 780  | 300            | 870                                 | 1300 | 1760           | 20                                | 3-phase                   | 450             |
| N 440 | 1300       | 600                    | 750  | 1000 | 440            | 1000                                | 1410 | 1830           | 30                                | 3-phase                   | 820             |
| N 660 | 1300       | 600                    | 1100 | 1000 | 660            | 1000                                | 1750 | 1830           | 40                                | 3-phase                   | 950             |

<sup>1</sup>Base included

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

<sup>3</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

\*Please see page 61 for more information about supply voltage

# Chamber Kilns up to 1340 °C

## heated from five sides

Our chamber kilns in the N...H range have a maximum firing temperature of 1340 °C. The kilns combine the product benefits of the N range but the insulation and heating elements are designed especially for firing at higher temperatures.

They are especially robust and are the ideal partner for professional ceramists. This kiln range is particularly durable and is guaranteed to serve you reliably and safely for many years. The excellent temperature uniformity is achieved with five side heating elements on support tubes.

### Standard equipment

- Like chamber kilns, heated from five sides, see page 22

### Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**The attractive design makes a professional chamber kiln an eye-catcher in your workshop!**

Additional  
equipment  
see page 21

“A Nabertherm is your best friend in the ceramics studio.”

Will Martin,  
[williamjohnmartin.com](http://williamjohnmartin.com)



Chamber kiln N 300/H



Heating from five sides on support tubes and a special arrangement of the heating elements ensure excellent temperature uniformity



SiC shelves to protect the floor heating and provide a level setting surface



Increased connected load for frequent high working temperatures

| Model   | Tmax<br>°C | Inner dimensions in mm |      |      | Volume in<br>l | Outer dimensions <sup>2</sup> in mm |      |                | Connected load <sup>3</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|---------|------------|------------------------|------|------|----------------|-------------------------------------|------|----------------|-----------------------------------|---------------------------|-----------------|
|         |            | w                      | d    | h    |                | W                                   | D    | H <sup>1</sup> |                                   |                           |                 |
| N 100/H | 1340       | 400                    | 530  | 460  | 100            | 760                                 | 1150 | 1440           | 11                                | 3-phase                   | 330             |
| N 150/H | 1340       | 430                    | 530  | 620  | 150            | 790                                 | 1150 | 1600           | 15                                | 3-phase                   | 380             |
| N 200/H | 1340       | 500                    | 530  | 720  | 200            | 860                                 | 1150 | 1700           | 20                                | 3-phase                   | 450             |
| N 300/H | 1340       | 550                    | 700  | 780  | 300            | 910                                 | 1320 | 1760           | 27                                | 3-phase                   | 540             |
| N 440/H | 1340       | 600                    | 750  | 1000 | 440            | 1000                                | 1410 | 1830           | 40                                | 3-phase                   | 900             |
| N 660/H | 1340       | 600                    | 1100 | 1000 | 660            | 1000                                | 1750 | 1830           | 52                                | 3-phase                   | 1250            |

<sup>1</sup>Base included

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

<sup>3</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

\*Please see page 61 for more information about supply voltage



# Drawer and Shuttle Kilns up to 1300 °C heated from five sides

Immerse yourself in the fascinating world of our chamber kilns in the NW range – a combination of tried and tested quality and innovative technology. With these kilns, you not only fire to 1300 °C, you create art.

Do you prefer to load your kiln conveniently and ergonomically? In this case, the NW product line is the ideal choice for your ceramics. With an easy-to-use drawer mechanism in the models up to 300 liters, the floor can be easily pulled out of the kiln. This considerably simplifies loading from three sides outside the kiln and helps protect your back and prevent back pain. The models from 440 liters have a bogie that can be loaded effortlessly outside the kiln.

Developed for ceramic workshops, studios, hospitals and schools, this product line is recommended as a trusted companion for everyday use. Most of our chamber kilns are

available immediately and larger models can usually be delivered within a short time.

## Standard equipment

- Like chamber kilns, heated from five sides, see page 22
- Ergonomic, effortless loading from three sides

## Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**Discover how effortless and inspiring firing can be – welcome to your personal creative oasis!**



Additional  
equipment  
see page 21



The Magic of  
Opening the Kiln.

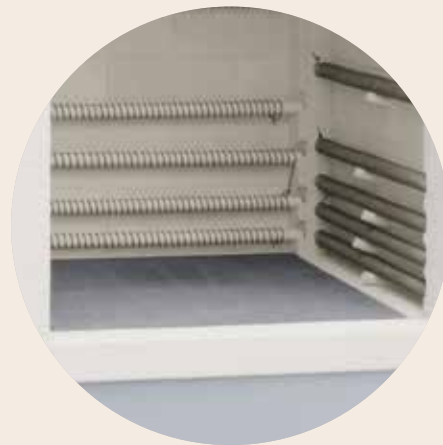
Chamber kiln NW 300



Ergonomic, effortless loading from three sides



Heating from five sides on support tubes and a special arrangement of the heating elements ensure excellent temperature uniformity



SiC shelves to protect the floor heating and provide a level setting surface

| Model  | Tmax<br>°C | Inner dimensions in mm |      |      | Volume in<br>l | Outer dimensions <sup>1</sup> in mm |      |      | Connected load <sup>2</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|--------|------------|------------------------|------|------|----------------|-------------------------------------|------|------|-----------------------------------|---------------------------|-----------------|
|        |            | w                      | d    | h    |                | W                                   | D    | H    |                                   |                           |                 |
| NW 150 | 1300       | 430                    | 530  | 620  | 150            | 810                                 | 1150 | 1600 | 11                                | 3-phase                   | 420             |
| NW 200 | 1300       | 500                    | 530  | 720  | 200            | 880                                 | 1150 | 1700 | 15                                | 3-phase                   | 490             |
| NW 300 | 1300       | 550                    | 700  | 780  | 300            | 930                                 | 1320 | 1760 | 20                                | 3-phase                   | 590             |
| NW 440 | 1300       | 600                    | 750  | 1000 | 450            | 1070                                | 1410 | 1830 | 30                                | 3-phase                   | 850             |
| NW 660 | 1300       | 600                    | 1100 | 1000 | 660            | 1070                                | 1750 | 1830 | 40                                | 3-phase                   | 1180            |

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

\*Please see page 61 for more information about supply voltage

<sup>2</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

# Drawer and Shuttle Kilns up to 1340 °C heated from five sides

You like to load your kiln effortlessly and ergonomically and fire frequently to just above 1300 °C? In this case, we recommend our chamber kilns with a drawer or removable bogie up to 1340 °C.

These kilns have all the product benefits of the NW product line as well as more robust insulation and stronger heating elements that are designed for firing at higher temperatures. The high electrical rating also allows the kilns to heat up much faster. This combination of technical properties gives the kiln range the power to fire your works of art to 1340 °C.

## Standard equipment

- Like chamber kilns, heated from five sides, see page 22
- Ergonomic, effortless loading from three sides

## Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**You can look forward to a reliable and safe firing experience!**



Additional  
equipment  
see page 21



Effortless and  
Ergonomic.

Shuttle kiln NW 440/H





Heating from five sides on support tubes and a special arrangement of the heating elements ensure excellent temperature uniformity



Drawer mechanism for NW chamber kilns up to 300 liters



Increased connected load for frequent high working temperatures

| Model    | Tmax<br>°C | Inner dimensions in mm |      |      | Volume in<br>l | Outer dimensions <sup>1</sup> in mm |      |      | Connected load <sup>2</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|----------|------------|------------------------|------|------|----------------|-------------------------------------|------|------|-----------------------------------|---------------------------|-----------------|
|          |            | w                      | d    | h    |                | W                                   | D    | H    |                                   |                           |                 |
| NW 150/H | 1340       | 430                    | 530  | 620  | 150            | 810                                 | 1150 | 1600 | 15                                | 3-phase                   | 520             |
| NW 200/H | 1340       | 500                    | 530  | 720  | 200            | 880                                 | 1150 | 1700 | 20                                | 3-phase                   | 590             |
| NW 300/H | 1340       | 550                    | 700  | 780  | 300            | 930                                 | 1320 | 1760 | 27                                | 3-phase                   | 670             |
| NW 440/H | 1340       | 600                    | 750  | 1000 | 450            | 1070                                | 1410 | 1830 | 40                                | 3-phase                   | 940             |
| NW 660/H | 1340       | 600                    | 1100 | 1000 | 660            | 1070                                | 1750 | 1830 | 52                                | 3-phase                   | 1310            |

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

<sup>2</sup>Please see page 61 for more information about supply voltage

<sup>\*</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

# Chamber Kilns

## heated from two sides

Are you looking for a kiln that you can load from the front via a large door and that also has an outstanding price-performance ratio? In this case, the NE product line from 40 to 100 liters is the perfect choice for your ceramics. The heating elements are protected in grooved bricks to ensure that they are not damaged when you load the kiln. With its appealing design, this kiln product line is the perfect choice to meet your needs.

These versatile chamber kilns are ideal for ceramics but can also be used for glass or porcelain painting or simple fusing work. Most of our models are in stock and can be delivered immediately. The infinitely adjustable fresh-air opening in the door and the exhaust air opening in the roof not only optimize ventilation of the kiln chamber, they also speed up cooling so that you can touch and be fascinated by your unique works of art sooner.

### 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)
- Low noise electronic relays

### Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

### Art that's fun!



Chamber kilns NE 70 with base as additional equipment



Chamber kiln NE 40 as a tabletop model

Additional  
equipment  
see page 21



Two-sided heating with elements protected in grooves



Insulation made from refractory and large format bricks ensures clean firing results



Model with base as additional equipment

| Model   | Tmax<br>°C | Inner dimensions in mm |     |     | Volume in<br>l | Outer dimensions <sup>3</sup> in mm |     |                | Connected load <sup>4</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|---------|------------|------------------------|-----|-----|----------------|-------------------------------------|-----|----------------|-----------------------------------|---------------------------|-----------------|
|         |            | w                      | d   | h   |                | W                                   | D   | H <sup>2</sup> |                                   |                           |                 |
| NE 40   | 1300       | 350                    | 330 | 350 | 40             | 640                                 | 800 | 600            | 2.9                               | 1-phase                   | 95              |
| NE 40/R | 1300       | 350                    | 330 | 350 | 40             | 640                                 | 800 | 600            | 5.5                               | 3-phase <sup>1</sup>      | 95              |
| NE 70/L | 1200       | 400                    | 380 | 450 | 70             | 690                                 | 850 | 700            | 2.9                               | 1-phase                   | 120             |
| NE 70   | 1300       | 400                    | 380 | 450 | 70             | 690                                 | 850 | 700            | 3.6                               | 1-phase                   | 120             |
| NE 70/R | 1300       | 400                    | 380 | 450 | 70             | 690                                 | 850 | 700            | 5.5                               | 3-phase <sup>1</sup>      | 120             |
| NE 100  | 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

<sup>4</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

\*Please see page 61 for more information about supply voltage



# Chamber Kilns

## heated from three sides

Additional  
equipment  
see page 21

Are you looking for a very special kiln for use in a public institution or for your hobby? In this case, our kilns in the NE product line with heating elements in grooved bricks on three sides and an unbeatable price performance ratio are the perfect choice for you. This kiln range is based on the durable design of our professional chamber kilns in combination with the product benefits of our NE product line.

If you want to use the kiln intensively and regularly pack it tightly, we recommend our chamber kilns with heating from five sides. A controlled air inlet flap is included with the standard delivery. After the drying phase in the heating program, the flap closes semi-automatically at a chosen temperature without you having to do anything.

“You can completely rely on the excellent firing results of a Nabertherm kiln.”

Rosa Wiland Holmes,  
[rosawilandholmes.com](http://rosawilandholmes.com)



### Standard equipment

- Heating elements protected in grooves
- Heating from three sides (both sides and floor)
- Three ceramic shelves and lower shelf to protect the bottom insulation and for safe stacking of the furniture
- Base frame included in the scope of delivery

### Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**Experience intuitive technology that makes your work much easier!**



Chamber kiln NE 280



Three-sided heating with elements protected in grooves



Three ceramic shelves and lower shelf to protect the bottom insulation and for safe stacking of the furniture



Base frame included in the scope of delivery

| Model    | Tmax<br>°C | Inner dimensions in mm |     |                  | Volume in<br>L | Outer dimensions <sup>4</sup> in mm |      |                | Connected load <sup>5</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|----------|------------|------------------------|-----|------------------|----------------|-------------------------------------|------|----------------|-----------------------------------|---------------------------|-----------------|
|          |            | w                      | d   | h                |                | W                                   | D    | H <sup>1</sup> |                                   |                           |                 |
| NE 140/L | 1100       | 450 <sup>2</sup>       | 580 | 570 <sup>3</sup> | 140            | 720                                 | 1130 | 1440           | 6                                 | 3-phase                   | 280             |
| NE 140   | 1300       | 450 <sup>2</sup>       | 580 | 570 <sup>3</sup> | 140            | 720                                 | 1130 | 1440           | 9                                 | 3-phase                   | 280             |
| NE 210/L | 1100       | 500 <sup>2</sup>       | 580 | 700 <sup>3</sup> | 210            | 770                                 | 1130 | 1570           | 9 <sup>6</sup>                    | 3-phase                   | 320             |
| NE 210   | 1300       | 500 <sup>2</sup>       | 580 | 700 <sup>3</sup> | 210            | 770                                 | 1130 | 1570           | 11                                | 3-phase                   | 320             |
| NE 280/L | 1100       | 520 <sup>2</sup>       | 580 | 890 <sup>3</sup> | 280            | 790                                 | 1130 | 1760           | 9                                 | 3-phase                   | 400             |
| NE 280   | 1300       | 520 <sup>2</sup>       | 580 | 890 <sup>3</sup> | 280            | 790                                 | 1130 | 1760           | 15                                | 3-phase                   | 400             |

<sup>1</sup>Base included

<sup>2</sup>Collar width reduced by 50 mm

<sup>3</sup>Collar width reduced by 110 mm

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

<sup>5</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

<sup>6</sup>380 V

\*Please see page 61 for more information about supply voltage

# Standard Equipment of Chamber Kilns

| Function                                                                                                                                                                                                                                                                  | NE 40 -<br>NE 100 | NE 140 -<br>NE 280 | N 100 –<br>NW 300/H | N 440 –<br>NW 660/H |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------|---------------------|---------------------|
| Catalog page                                                                                                                                                                                                                                                              | 30 - 31           | 32 - 33            | 22 - 29             | 22 - 29             |
| 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                                                                                                                                                                                                                                             | ●                 | ●                  | ●                   | ●                   |
| Low noise electronic relays                                                                                                                                                                                                                                               | ●                 | ●                  | ●                   | ●                   |
| Removable controller for comfortable operation                                                                                                                                                                                                                            | ●                 | ●                  | ●                   | ●                   |
| Semi-motorized air inlet flap                                                                                                                                                                                                                                             | -                 | ●                  | ●                   | -                   |
| Air inlet flap closes motorized 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 product line
- \* Already motor-driven in the standard version







# Raku Kilns

RAKU is centuries-old Japanese firing technique that brings a lot of pleasure. Our Nabertherm RAKU 100 chamber kiln was developed to ensure that you can experience the joy of firing your unique works of art up close.

Being able to load the kiln from the front gives you a clear view of how to arrange the art works to be fired. The door can be opened easily facing away from the user while the kiln is still hot.

Unloading the ceramics while they are hot makes the firing process a real event. By quickly cooling the ceramics and covering them with material such as leaves, straw or sawdust reduces the glaze. This produces wonderful color shades and the distinctive surface crackle that give every work of art a unique character.

## Standard equipment

- High-quality, low-storage insulation for short heating times
- Special flame system for good temperature uniformity
- Positioning of the gas burner under the kiln resulting in centralized heat transfer to the charge
- Propane gas burner with cylinder connection
- Set of furniture
- Temperature measurement device incl. thermocouple
- Adjustable door with an opening angle of approx. 270°
- Environmentally friendly, durable powder-coated housing

**Technically sophisticated, but also full of emotion and personal experience – enjoy the art of RAKU firing with the RAKU 100!**



Raku kiln 100





Cooling and immersion of the ceramics in leaves, straw or sawdust



Set of furniture



15 kW propane gas mounted under the kiln



Temperature measurement device



For a Very Special Firing Experience.

| Model    | Tmax<br>°C    | Inner dimensions in mm |     |     | Volume in<br>l | Outer dimensions <sup>1</sup> in mm |     |      | Max. charge weight<br>in kg | Weight in<br>in kg |
|----------|---------------|------------------------|-----|-----|----------------|-------------------------------------|-----|------|-----------------------------|--------------------|
|          |               | w                      | d   | h   |                | W                                   | D   | H    |                             |                    |
| Raku 100 | 1100          | 350                    | 350 | 350 | 100            | 800                                 | 650 | 1275 | 10                          | 75                 |
| Burner   | Outputs 15 kW |                        |     |     |                |                                     |     |      |                             |                    |

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





Our Fusing  
Furnaces

For glass art applications, Nabertherm offers fusing furnaces in various sizes and designs. All are handcrafted to the highest standard using first class materials at our factory in Lilienthal and proudly carry the “Made in Germany” label. The high quality of the furnace itself is evident, but you really notice this when you are holding the finished product in your hand. Their impressive design, combined with an intuitive color touch screen controller, make Nabertherm fusing furnaces the ideal partner in your studio. We are well aware of how important every firing is for you, so we developed the free MyNabertherm app. This allows you to monitor your firings on mobile devices and track firing progress at all times.

**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.



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



Optimized insulation construction for a perfect balance between the best possible energy consumption and short cycle times



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



Controller can be switched to “Solar Mode” to take advantage of electricity from PV systems with and without battery



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



Defined application within the constraints of the operating instructions

“Our fusing furnaces are reliable companions for your creativity.”





# Detailed Overview



Large handles



Closely arranged roof heating elements protected in quartz glass tubes



Level table surface with rugged refractory insulation



Adjustable, large quick-release fasteners



Rugged base on castors with shelf



Ergonomic charging height of 860 mm



Heating switches off when the lid is opened



Low noise electronic relays



Closable opening for ventilation



Removable controller with touch operation (see page 58)



Mobile monitoring with the MyNabertherm app



Gas pressure springs



Appealing, dual-shell stainless steel housing



# Additional Equipment



Observation window in air inlets to observe the glass



Manual and motorized exhaust air opening in the roof for faster cooling. Operating lever on the right-hand side of the furnace (above the switchgear).



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



# Fusing Furnaces

## with fixed table

Additional  
equipment  
see page 41

Nabertherm fusing furnaces in the GF 75 – GF 600 product line were developed for professional use to meet the highest standards. The heating elements, arranged close together and protected in quartz glass tubes, guarantee a remarkably high level of temperature uniformity across the entire surface of the table – perfect for fusing or bending glass.

All models have an appealing, dual-shell stainless steel housing. The level table surface is made from sturdy, durable refractory bricks. The hood opening is supported with gas struts that makes for effortless work. The electric rating of the furnace heating has been optimized to heat up the glass quickly.

### Standard equipment

- Heating elements protected in quartz glass tubes
- Controller integrated on the right-hand side of the furnace to save space

### Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**Our fusing furnaces combine precision and aesthetics. Experience how our technology enriches your artistic vision!**



Fusing furnace GF 75



Fusing furnace GF 240



Heating elements in the roof arranged closely next to each other are protected in quartz glass tubes



Controller with touch operation AC590 (50 programs with each 40 segments)



Rugged base on castors with surface for glass and tools

| Model    | Tmax<br>°C | Inner dimensions in mm |      |     | Floor space<br>in m <sup>2</sup> | Outer dimensions <sup>4</sup> in mm |      |                | Connected load <sup>5</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|----------|------------|------------------------|------|-----|----------------------------------|-------------------------------------|------|----------------|-----------------------------------|---------------------------|-----------------|
|          |            | w                      | d    | h   |                                  | W                                   | D    | H <sup>3</sup> |                                   |                           |                 |
| GF 75    | 900        | 620                    | 620  | 310 | 0.38                             | 1070                                | 950  | 1370           | 3.6                               | 1-phase                   | 180             |
| GF 75/R  | 950        | 620                    | 620  | 310 | 0.38                             | 1070                                | 950  | 1370           | 5.5                               | 3-phase <sup>1</sup>      | 180             |
| GF 190/L | 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             |

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

<sup>2</sup>Fuse if connected to 230 V = 32 A

<sup>3</sup>Including base

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

<sup>5</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

\*Please see page 61 for more information about supply voltage



# Fusing Furnaces with movable table

Fusing furnaces in the GFM product line were developed especially to complement the proven quality benefits of the GF product line with an option to load the table outside the furnace. The table runs on swivel castors and allows maximum flexibility and mobility.

The scope of delivery includes a flat table, ideal for fusing work, while more tables can be added if required. The innovative interchangeable table system is especially economic in production processes. While material is fired on one table in the furnace, the other can already be prepared outside the furnace. Instead of flat tables, you can also use different tables with different heights. This opens up many options if, for example, the furnace is to be used for higher components. Our fusing furnaces in the GFM product line

combine technology and flexibility. They offer a tailored solution for your individual requirements.

## Standard equipment

- Heated hood with fixed frame
- Movable table

## Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**Experience how our technology can take your production to a new level!**



Additional  
equipment  
see page 41



Craftsmanship  
for Happiness.

Fusing furnace with motorized hood opening



Heating elements in the roof arranged closely next to each other are protected in quartz glass tubes



Controller with touch operation AC590 (50 programs with each 40 segments)



Movable table on swivel castors

| Model   | Tmax<br>°C | Inner dimensions in mm |      |     | Floor space<br>m² | Outer dimensions¹ in mm |      |      | Connected load²<br>kW | Electrical<br>connection* | Weight<br>in kg |
|---------|------------|------------------------|------|-----|-------------------|-------------------------|------|------|-----------------------|---------------------------|-----------------|
|         |            | w                      | d    | h   |                   | W                       | D    | H    |                       |                           |                 |
| GFM 420 | 950        | 1660                   | 950  | 400 | 1.57              | 2230                    | 1390 | 1460 | 18                    | 3-phase                   | 630             |
| 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             |

¹External dimensions vary when furnace is equipped with additional equipment. Dimensions on request

\*Please see page 61 for more information about supply voltage

²The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

# Top Loaders as Fusing Furnaces

Choose the ideal companion for your fusing work – our top loaders as fusing furnaces. With robust refractory insulation and protected heating in the lid, our fusing furnaces in the F 75 – F 220 range with additional side heating provide optimum support.

## Standard equipment

- Refractory insulation ensures clean firing results
- Lid with adjustable quick-release lock and padlock
- Adjustable lid suspension
- Durable lid seal (brick on brick)
- Lid interlock safety switch
- Heating elements in the roof, with fusing furnaces F 75 – F 220 also all around the sides
- Low noise electronic relays
- Powerful gas struts support lid opening
- Top loader F 30 as tabletop model without castors

- F 220 with two-zone control (lid and side) as standard

## Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**A reliable companion whose performance will delight you!**

“I entrust my art to my Nabertherm fusing furnace.”

David Perry  
[davidperryglassceramics.uk](http://davidperryglassceramics.uk)

Additional  
equipment  
see page 41



Fusing furnace F 30





Sturdy lid design with two lid brackets



Interior with bottom side ring heating on fusing furnaces F 75 – F 220



Sturdy professional-grade castors on fusing furnaces F 75 – F 220

| Model  | Tmax<br>°C | Inner dimensions in mm |     |     | Floor space<br>in m <sup>2</sup> | Outer dimensions <sup>1</sup> in mm |      |     | Connected load <sup>2</sup><br>kW | Electrical<br>connection* | Weight in<br>kg |
|--------|------------|------------------------|-----|-----|----------------------------------|-------------------------------------|------|-----|-----------------------------------|---------------------------|-----------------|
|        |            | w                      | d   | h   |                                  | W                                   | D    | H   |                                   |                           |                 |
| F 30   | 950        | Ø 410                  |     |     | 0.13                             | 640                                 | 770  | 585 | 2.0                               | 1-phase                   | 55              |
| F 75/L | 950        | 750                    | 520 | 230 | 0.33                             | 945                                 | 930  | 690 | 3.6                               | 1-phase                   | 95              |
| F 75   | 950        | 750                    | 520 | 230 | 0.33                             | 945                                 | 930  | 690 | 5.5                               | 3-phase                   | 95              |
| F 110  | 950        | 930                    | 590 | 230 | 0.47                             | 1130                                | 1000 | 690 | 7.5                               | 3-phase                   | 110             |
| F 220  | 950        | 930                    | 590 | 460 | 0.47                             | 1130                                | 1000 | 920 | 15.0                              | 3-phase                   | 150             |

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

\*Please see page 61 for more information about supply voltage

<sup>2</sup>The connected load refers to the standard furnace and may increase for a furnace with additional equipment. For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.

# Glass Beads Cooling Furnace

A high-quality furnace is indispensable for the creative design of glass beads. The MF 5 model is the ideal companion for cooling glass beads or glass jewelry.

The door has a slit for glass beads which can be closed with the supplied plug if the furnace is to be used for other applications. With a maximum temperature of 950 °C, the furnace becomes a versatile helper – also ideal for small fusing and enameling jobs, decorations and to pre-heat frits and other materials.

### Standard equipment

- Tabletop model
- Furnace top heating, protected in quartz glass tubes
- Multi-layer insulation
- Housing made from structured stainless steel



Experience Glass  
Working in a New Light.



Glass beads cooling furnace MF 5

- Low noise electronic relays
- Easy to fill with glass beads

### Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 59

**Experience the world of glass working with a Nabertherm furnace that not only offers technology but also creates passion and inspiration!**



Glass beads



Glass beads

| Model | Tmax<br>°C | Inner dimensions in mm |     |     | Volume in<br>l | Outer dimensions in mm |     |     | Connected load¹<br>kW | Electrical<br>connection* | Weight in<br>kg |
|-------|------------|------------------------|-----|-----|----------------|------------------------|-----|-----|-----------------------|---------------------------|-----------------|
|       |            | w                      | d   | h   |                | W                      | D   | H   |                       |                           |                 |
| MF 5  | 950        | 220                    | 240 | 100 | 5              | 485                    | 370 | 320 | 1.6                   | 1-phase                   | 15              |

¹The connected load refers to the standard furnace and may increase for a furnace with additional equipment.      \*Please see page 61 for more information about supply voltage  
For furnaces with connection options for multi-range voltages, the connected load applies to the highest permissible connected voltage.









Installation

# Installation and Exhaust Air System

## Installation

When the kiln is being installed, it is important that there is a safety gap of 1.0 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 used for protection. 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.



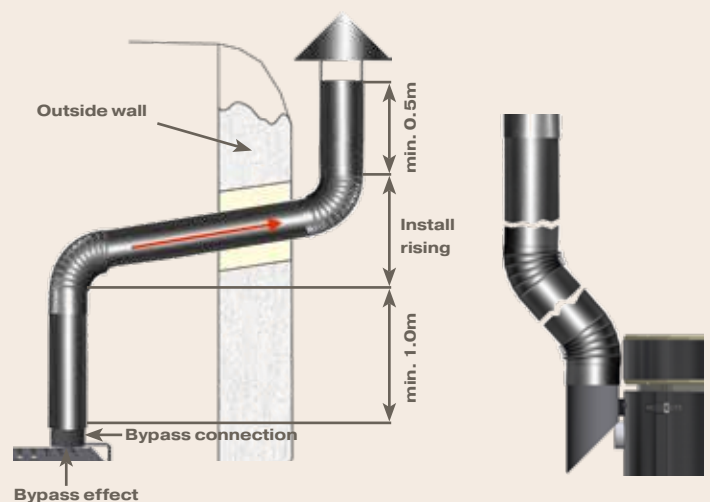
## Exhaust air system

When ceramics are fired, depending on the quality of the clay and/or glaze, it 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.





# Nabertherm Goes Green

All of our kilns are hand-made at our factory Germany, using the best available materials. In our kiln production, we not only pay attention to the careful use of our valuable resources, but also make an important contribution to sustainable energy generation ourselves.

With 2450 solar modules, our state-of-the-art photovoltaic system, installed on the roof of our production hall, has a powerful output of 999 kWp! This covers a significant part of our electricity requirements and reduces our CO<sub>2</sub> emissions by 100 tons per year. We are thus taking another important step towards climate neutrality.

**We live sustainability!**

2450  
Modules!  
999 kWp!







# Nabertherm Goes Solar

Have you already invested in a photovoltaic system as your contribution to sustainable energy generation and would like to use this energy to operate your kiln? Every controller in the 500 series can be switched to "Solar Mode" and utilize electricity from photovoltaic systems with and without a battery. A specially tuned control response ensures that the delayed switchover times of solar storage systems are taken into account in the control system. As opposed to other solutions on the market, in solar mode, our controllers work with two switching points, which reduces temperature overshoots. This produces more uniform and improved firing results, especially with hold times. The "Solar Mode" can be set so that the oscillation behavior of the controller for heating ramps and hold times is considered separately. This ensures the best possible balance between short heating times and precise temperature control in the hold range.

Solar mode can be activated on all 500 series controllers and can be used for all electrically heated kilns.

**Photovoltaics for sustainable firing results!**







Solar  
Mode





# Kiln Control and Documentation



Our controller AC590 was developed and is produced within the Nabertherm Group. When developing controllers, our focus is on ease of use. The potter/ceramist can choose between 24 languages, the controller is custom-fit for each kiln model or the associated application. The AC590 is equipped with an integrated USB-interface for documentation of firing data (NTLog/NTGraph) and can also be used for cone firing in addition to free program input.

**Reliability and ease of use are top priorities in the development of our controllers!**



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



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



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



MyNabertherm app for online monitoring of the firing can be downloaded on mobile devices free of charge



Controller can be switched to "Solar Mode" to take advantage of electricity from PV systems with and without battery



Cone-Firing Assistant "Conny"



# Nabertherm Controllers 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 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, monitoring your 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.

"I was immediately able to work intuitively with the controller."

Samet can Alis  
[sametcanalis.com](http://sametcanalis.com)

### Standard equipment

- Transparent, graphical display of temperature curves
- Clear presentation of firing 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
- Cone firing assistant "Conny" for easy start of your program
- Up to 50 programs with each 40 segments
- Documentation of firing curves on USB storage medium in .csv file format
- Service information can be read out via a USB stick
- Clear presentation
- Plain text display
- Can be configured for all furnace families
- Can be parameterized for different firings
- "Solar Mode" to utilize electricity from photovoltaic systems with and without a battery
- Delayed start possible





# Cone-Firing Assistant "Conny"

Our cone-firing assistant "Conny" makes your kiln starting easier than ever before. A horizontal, scrollable wizard helps you to select the most important firing steps for the desired cone firing.



Firstly, select "Conny" - upper left file, Ceramic vase symbol.



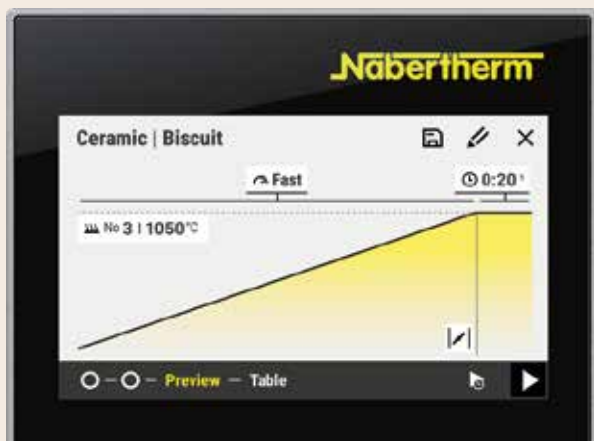
Next you select the firing mode.



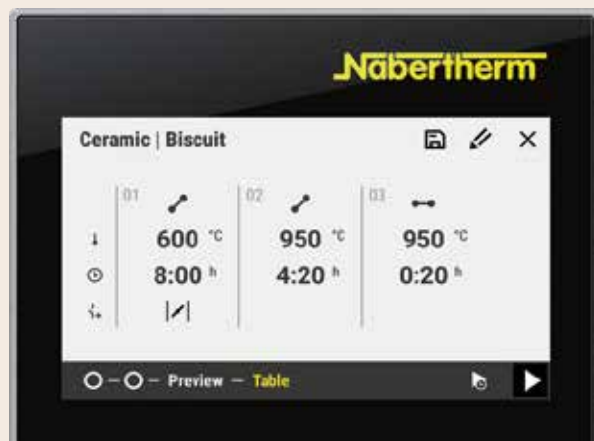
Thirdly, you select an optional preheating time and the correct cone no.



In the fourth step you can select the speed and holding time. Optionally, the kiln can be pre-programmed with a delayed start.



Now, you can start directly your kiln. Or you have an optional graphic preview or a tabular overview of the selected cone firing.



# Highlights of Controller AC590

## Modern design



Colored display of temperature curves and firing data

## Simple programming



Simple and intuitive program input via touchpanel (up to 50 programs with each 40 segments)

## 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 firing information, including setpoint, actual value and switched functions

## Wi-Fi-capable



Connection with the MyNabertherm app



Intuitive touch screen



Easy program input and control



Precise temperature control



User levels



Firing data documentation on USB

You can find more information about Nabertherm controllers, firing data documentation as well as tutorials on how to use the devices on our website: [nabertherm.com/en/series-500](http://nabertherm.com/en/series-500)



# Functions of Standard Controllers

|                                                                                        | AC590 |
|----------------------------------------------------------------------------------------|-------|
| Number of programs                                                                     | 50    |
| Segments                                                                               | 40    |
| Extra functions (e.g. fan or automatic flaps) max.                                     | 6     |
| Maximum number of control zones                                                        | 1     |
| Drive of manual zone control                                                           | ●     |
| Self-optimization                                                                      | ●     |
| Real-time clock                                                                        | ●     |
| Graphic color display                                                                  | ●     |
| Graphical display of temperature curves (program sequence)                             | ●     |
| Status messages in clear text                                                          | ●     |
| Data entry via touchpanel                                                              | ●     |
| Entering program names (e.g. "glaze firing")                                           | ●     |
| 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                                                                      | ●     |
| kWh meter                                                                              | ●     |
| Operating hour counter                                                                 | ●     |
| Set point output                                                                       | ●     |
| NTLog Basic for Nabertherm Controller: Recording of firing data with a USB flash drive | ●     |
| Malfunction memory                                                                     | ●     |
| Number of selectable languages                                                         | 24    |
| Wi-Fi-capability ("MyNabertherm" app)                                                  | ●     |
| Solar mode                                                                             | ●     |

● Standard



Unique Range of Features.

## Supply voltages for Nabertherm furnaces

The connected load in the catalog refer to the standard furnace with 400 V (3/N/PE) or 230 V (1/N/PE). Other supply voltages on request.



# The MyNabertherm App

## for mobile monitoring of firing progress

Our free MyNabertherm app is the powerful, digital accessory for Nabertherm Series 500 Controllers. Use the app for convenient online progress monitoring of your Nabertherm kilns – 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.

### App-functions

- Convenient monitoring of one or more Nabertherm kilns simultaneously
- Clear presentation as a dashboard
- Individual overview of a kiln
- Active/Inactive kilns
- Operating status
- Current firing data

### Display of program progress for each kiln

- Graphic presentation of the firing progress
- Display of furnace name, program name, segment information
- Start time, program run time, remaining run time
- Display of additional functions such as fresh-air fan, exhaust air flap, etc.
- Operating modes as symbols

### Push notifications in case of malfunctions and at program end

- Push notification on the lock screen
- Error messages with description of the malfunction in the individual overview and in a message list

### Contacting with service possible

- Stored kiln data facilitate rapid support for you

### Requirements

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

**No matter where you are, you always know the status of your firing!**



Convenient monitoring of one or more Nabertherm furnaces simultaneously



Display of program progress for each kiln



Easy to contact



Monitoring of Nabertherm kilns with controller series 500 with touch operation

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.



Any addition of Nabertherm kilns



Push notifications in case of malfunctions



Clear context menu

# NTGraph and NTEdit

## firing data storage and program input via PC

### Would You Like to Save Your Firing Data or Enter Programs on the PC?

There are various options for evaluation and program input the firings for optimal firing data documentation and firing 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 firing data of the connected Nabertherm Controller AC590 on a USB stick. The firing data 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 kilns

The firing 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

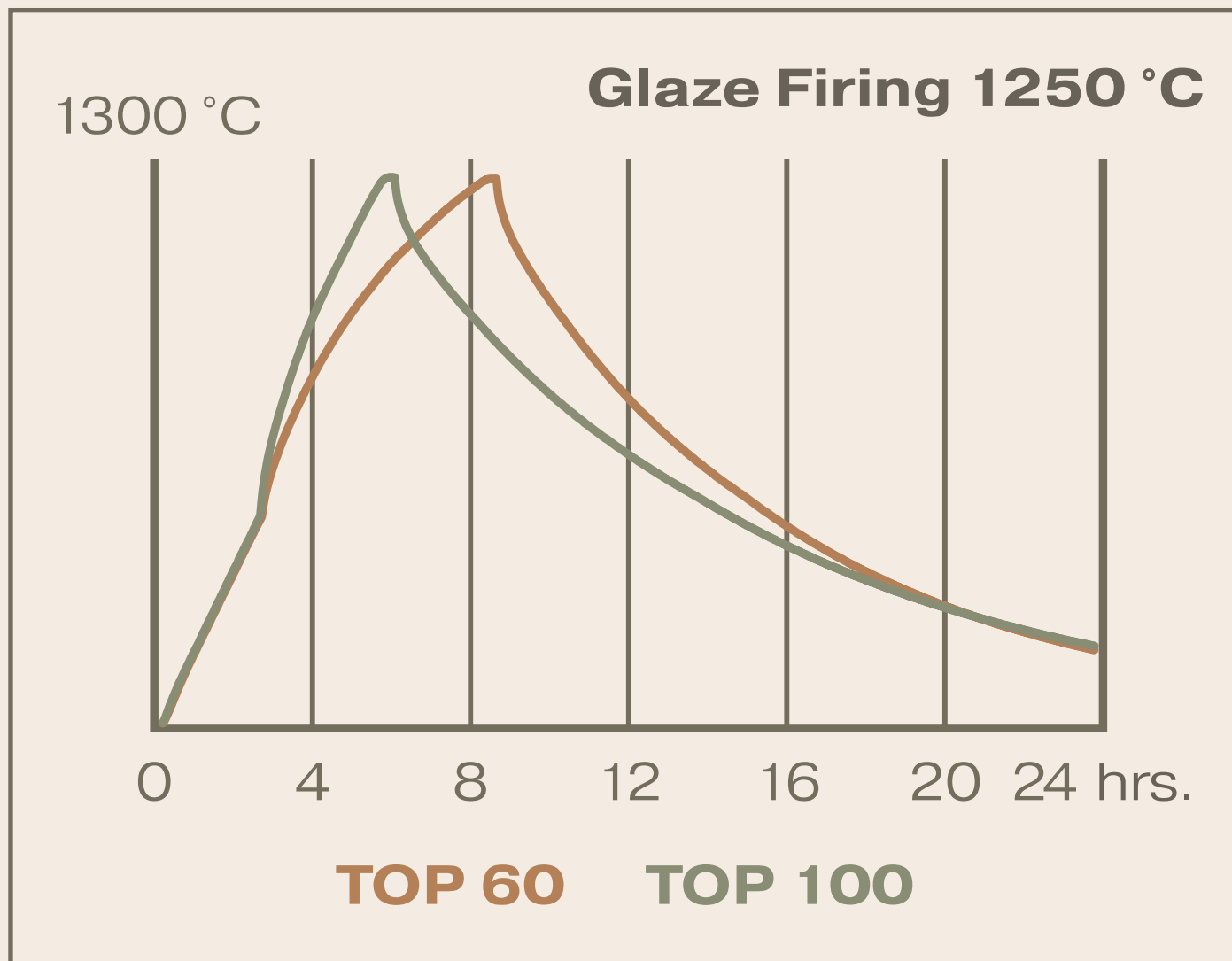
the visualization of the data generated by NTLog. Prerequisite for its use is the installation of the program Excel™ for MS Windows™ (from version 2003). After data import presentation as diagram, table or report can be chosen. The design (color, scaling, reference labels) can be adapted by using prepared 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

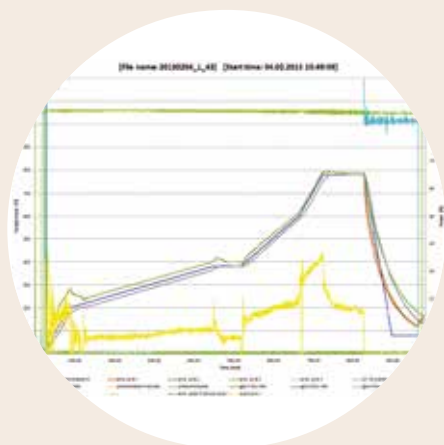
By using the software NTEdit for MS Windows™ (Freeware) the input of the programs becomes clearer and thus easier. The program can be entered on customers PC and then be imported into the controller AC590 with a USB stick. The display of the set curve is tabular or graphical. The program import in NTEdit 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).







Example curve of a glaze firing



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



Recording of firing data of the connected controller via USB stick

| segment | Nr   | Start temp °C | End temp °C | Time h:mm | Rate °/h |
|---------|------|---------------|-------------|-----------|----------|
| 1       | 0    | 1300          | 900         | 00:10     | 100      |
| 2       | 1300 | 900           | 900         | INFINITE  |          |
| 3       | 900  | 900           | 900         | INFINITE  |          |

Firing data input via NTEdit software (freeware) for MS Windows™



# 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. We 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 75 years of experience in furnace construction!

In addition to our qualified service technicians on site, our service specialists in Lillienthal 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 are part of our service portfolio. Our range of services also includes the modernization of older furnace systems or new linings. We work closely together with our qualified specialist dealers. They not only sell our products within their territories, but are also competent contact persons with regard to spare part and customer service inquiries. Through this close collaboration with our specialist dealers, we ensure that, as a customer, you are supplied quickly and efficiently with the spare parts that you need. Our specialist dealers are specially trained and have the necessary expertise to assist you and guarantee the best possible on-site support. We are proud to be able to rely on such a well-connected and qualified dealer network to offer you the best possible service.

### Your needs are our top 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
- Customer training in function and operating of the system
- Competent service team for fast help on the phone
- Preventive maintenance to ensure that your furnace is ready for use
- Modernization or relining of older furnace systems

“The specialists in the Nabertherm service team are true experts in their field. They were able to provide me with competent help on the phone and in the end you can really replace almost every part in a furnace such as this.”

Customer feedback

### Contact us:

#### Spare parts

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+49 4298 922 474

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Ceramics Creates Passion.  
Trust in Nabertherm.





# Arts & Crafts

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**All other countries: follow**  
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