

Arts & Crafts
Nabertherm

Kilns
for Workshop
and Hobby



Handcrafted in Germany
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:

- Certified to UL standard 499 and CSA standard C22.2#221
- 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

Contents

History

History of Nabertherm kilns	4
Nabertherm facts	6

Top Loaders

Optimal energy efficiency and excellent firing results	11
Why should I buy a Nabertherm Toploader?.....	12
Convincing advantages of our top loaders.....	14
Additional equipment	15
Top loaders up to 2408 °F	16
Top loaders with increased connected load	18

Chamber Kilns

Convincing advantages of our chamber kilns.....	22
Additional equipment	23
Chamber kilns up to 2372 °F	24
Chamber kilns up to 2444 °F	26
Standard design of chamber kilns	28

Installation and Exhaust Air

Installation and exhaust air system	30
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Sustainability

Nabertherm goes Green	32
Nabertherm goes Solar	34

Kiln Control

Nabertherm controller AC590	38
Cone-firing assistant	39
Highlights of controller AC590.....	40
Electrical overview.....	41
The MyNabertherm app	42
NTGraph and NTEdit	44



History of Nabertherm Kilns

The name Nabertherm stands for the highest quality and durability in kiln construction. 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 HO 70



Top loader Top 60

1947

Introduction of Naber kilns for pottery

1954

Introduction of the new hobby kiln series HO

2003

New line 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



Chamber kiln N 200



Chamber kiln NW 300

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Top loader Top 100



Top loader HO 100



Top loader Top 220



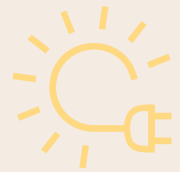
2012

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 NW 300



Chamber kiln N 70 E



Chamber kiln N 200

Ceramics Creates Passion. Trust in Nabertherm.



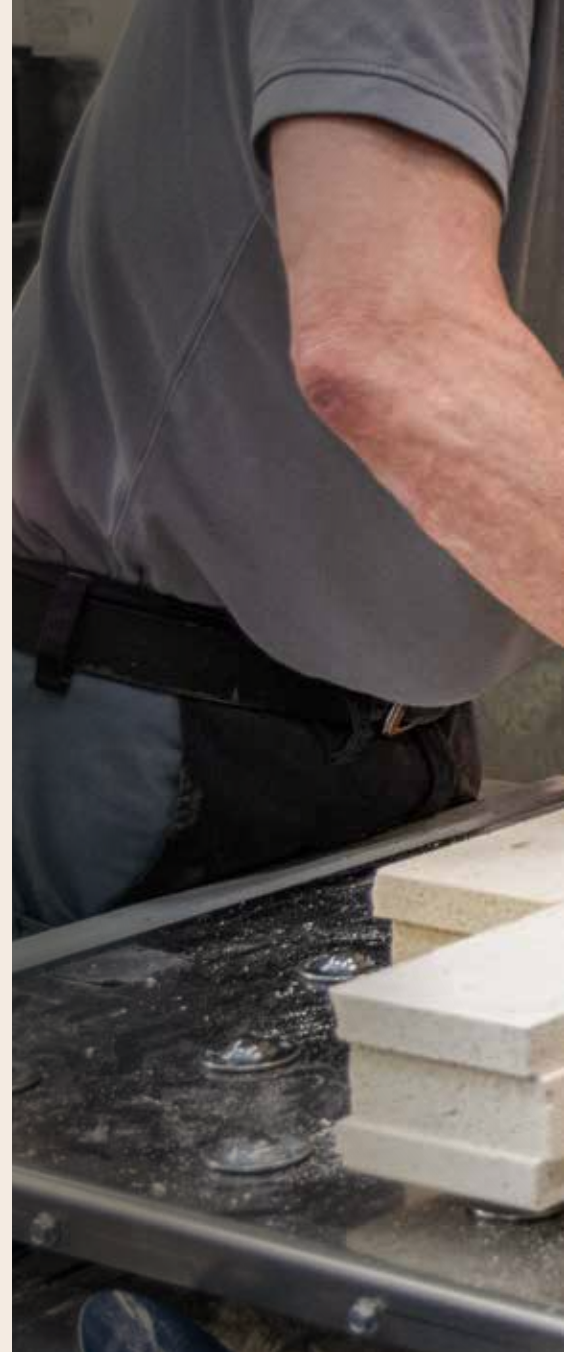
Facts

- 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 47

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 top-loading washing machine, loading it with a pink cloth. She is wearing a white, button-up cardigan with puffed sleeves and blue jeans. The washing machine is white and has a dark grey door. The background is a rustic kitchen with shelves holding various items like woven baskets, ceramic dishes, and a teapot. A yellow circular graphic in the top right corner contains 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:



Certified to UL standard 499 and CSA standard C22.2#221



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



Use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This means that no alumina silicate wool, also known as “refractory ceramic fiber” (RCF), which is classified and possibly carcinogenic, is used.



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



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



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



Defined application within the constraints of the operating instructions



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



Heating elements made from APM-wires



Thermocouple type S

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

Marta G. Palacios,
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.

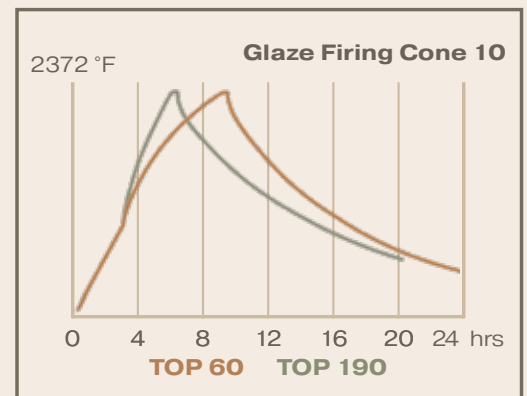
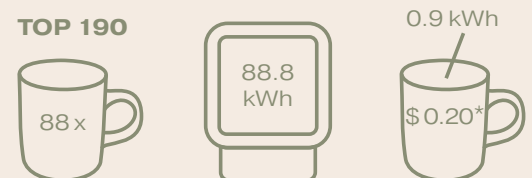
You can rely on Nabertherm:

- 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 190 as examples:



*Bisque firing 1742 °F, glaze firing 2282 °F. Charge weight incl. kiln furniture: Top 60 - 40 lbs, Top 190 - 115 lbs. Calculated energy price: 0.23 \$/kWh.

Why Should I Buy a Nabertherm Toploader?



Nabertherm's unique selling points in the scope of supply

Because of the high quality **APM-wire heating elements** that we use, the result is reduced maintenance intervals. While the heat-up times of conventional heating elements used on the market are getting longer and longer the heating element wear out quicker. However, the quality of our **APM-wire heating elements** remain stable.

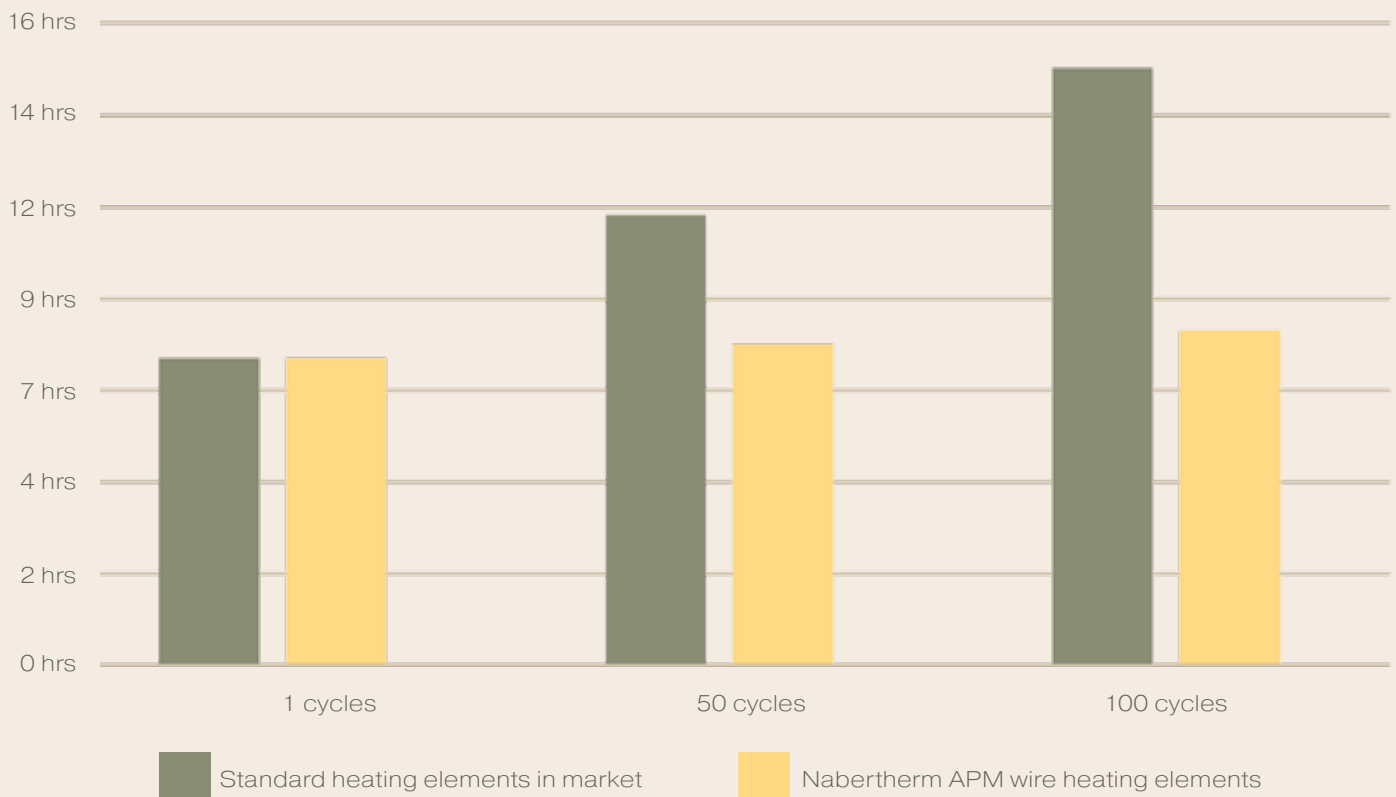
- **APM-wire heating elements**, which are of the highest quality level and most durable
- **Thermocouple type S**, which hardly wear out (see table on page 13)
- **Energy efficient light-weight refractory bricks** inside the chamber and microporous rear insulation that allows to reach a top temperature of 2408 °F – **Cone 10** - with minimum energy consumption
- **36 months warranty**

That's what we call sustainability!



Increase in heating time to Cone 10 temperature caused by ageing of the heating elements

(example with fully loading kiln)





Thermocouple type S

Our standard scope of delivery includes a **thermocouple type S** with very long service life. Quality is of the highest importance to us. The encapsulated protection tube provides protection against chemical interaction and ageing.



Thermocouple positioned in insulation as protection

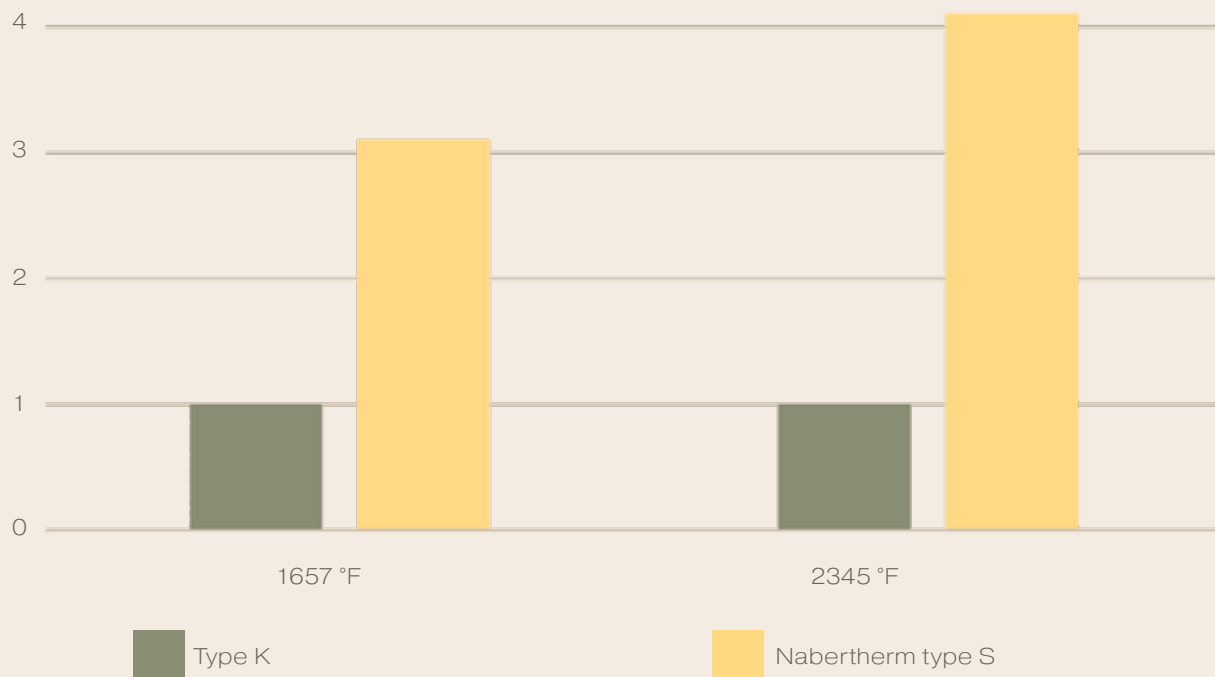
Furthermore, our thermocouple is positioned in the insulation, so that it is protected against manual damage.

Ceramics Creates Passion.
Trust in Nabetherm.

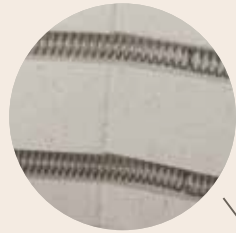
Very long lifetime

Relative comparison of the service life of thermocouple type K to type S

Service life as factor



Convincing Advantages of our top loaders



APM-wire heating elements, protected in grooves



Thermocouple type S protected in the insulation



Solid state relays ensure low noise heater operation



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 38)



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

Ceramics Creates Passion.
Trust in Nabertherm.



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



Switchable contact for customer site exhaust air extraction fan



Bottom heating and manual zone control for Top 160 - Top 220:

Does your work need a very precise temperature uniformity? In this case we recommend the optional bottom heating for our top loaders. 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 2408 °F

Cone 10
firing

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 fire cone 10 with very low energy consumption.

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

Marta G. Palacios,
ohyokoceramics.com



- Three layers of high-quality 15 mm microporous rear insulation for Top 60 to ensure that you reach your firing temperature reliably
- Two layers of high-quality 20 mm microporous rear insulation for top loaders from Top 160 to Top 220 for a well-balanced ratio between energy-saving heating and shorter cooling times for the kiln
- Certified to UL standard 499 and CSA standard C22.2#221
- Automatic lid lock upon opening for additional safety

Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 38

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

Additional
equipment
see page 15



Top loader Top 220



All-round heating elements, protected in grooves made of **APM wires**



Three layers insulation for top loader
Top 60



Two layers insulation for top loaders
from Top 160 to Top 220

Model	Tmax* °F	Inner dimensions in inch			Volume in cu ft	Outer dimensions ¹ in inch			Weight in lbs	Volts	Phase	Connected load kW	Amps ²	Amps breaker	NEMA Plug
		w	d	h		W	D	H							
Top 60	2408	Ø 16.0	18.0	2.11	23.6	35.0	35.8	163	208	2/PE	3.7	17.6	30	6-30	
									240	2/PE		15.2	20	6-20	
Top 160	2408	Ø 23.0	22.4	5.65	30.7	42.5	41.3	269	208	2/PE	9.1	43.6	60	fixed connection	
									240	2/PE		37.7	50	6-50	
									208	3/PE		25.3	50	15-50	
									240	3/PE		21.9	50	15-50	
Top 190	2408	Ø 23.0	27.0	6.70	30.7	42.5	46.0	298	208	2/PE	10.0	47.9	60	fixed connection	
									240	2/PE		41.5	60	fixed connection	
									208	3/PE		27.8	50	15-50	
									240	3/PE		24.1	50	15-50	
Top 220	2408	36,6	23.0	18.0	44.0	41.3	37.8	340	208	2/PE	15.1	72.4	100	fixed connection	
									240	2/PE		62.7	80	fixed connection	
									208	3/PE		41.9	60	fixed connection	
									240	3/PE		36.3	50	15-50	

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

²Amps vary when kiln is equipped with additional equipment

*To fire cone 10

Top Loaders up to 2408 °F with increased connected load

Cone 10
firing

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 2408 °F/Cone 10. 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. Alternatively, for permanent professional use, we recommend our chamber kilns with five side heating.

Standard equipment

- Like top loaders, see page 16

Let your art shine in a new dimension!

Additional
equipment
see page 15



Top loader Top 60/R



Top loader Top 190/R



Increased connected load for frequent high working temperatures



Robust heating elements made of **APM wire** 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* °F	Inner dimensions in inch			Volume in cu ft	Outer dimensions ¹ in inch			Weight in lbs	Volts	Phase	Connected load kW	Amps ²	Amps breaker	NEMA Plug
		w	d	h		W	D	H							
Top 60/R	2408	Ø 16	18	2.11	23.6	35.0	35.8	163	208	2/PE	5.6	26.7	50	6-50	
									240	2/PE		23.2	30	6-30	
									208	3/PE		26.7	50	15-30	
									240	3/PE		23.2	30	15-30	
Top 190/R	2408	Ø 23	27	6.70	30.7	42.5	46.0	298	208	2/PE	13.6	65.2	100	fixed connection	
									240	2/PE		56.5	80	fixed connection	
									208	3/PE		37.7	50	15-50	
									240	3/PE		32.7	50	15-50	

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

²Amps vary when kiln is equipped with additional equipment

³To fire cone 10

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.

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



Certified to UL standard 499 and CSA standard C22.2#221



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



Use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This means that no alumina silicate wool, also known as “refractory ceramic fiber” (RCF), which is classified and possibly carcinogenic, is used.



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 Windows™ on the PC



Defined application within the constraints of the operating instructions



Thermocouple type S

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

Katharina Pasternak,
leelahloves.de



Convincing Advantages of our chamber kilns

Ceramics Creates Passion.
Trust in Nabertherm.



Multi-layer refractory insulation with light-weight refractory bricks



Door seal "brick on brick"



Dual shell housing provides for low temperatures



Motorized exhaust air flap for chamber kiln N 440 (H)



Exhaust air opening for chamber kilns N 200 (H) and N 300 (H)



Mobile monitoring with the MyNabertherm app



Protected door contact switch



Solid state relays ensure low noise heater operation



Manual air inlet sliding damper for chamber kiln N 440 (H)



Manual air inlet flap for chamber kilns N 200 (H) and N 300 (H)

Additional Equipment

Cooling fan incl. motorized air inlet flap for kilns N 200 (H) and N 300 (H) to reduce process times



Motorized air inlet flap that can be opened and closed in relation to the program for N 200 (H) - N 440 (H)



Door locking kit as set consisting of two door locks with 2 keys for kilns N 200 (H) and N 300 (H)



Switchable contact for switching on a customer site exhaust air extraction fan



Motorized exhaust air flap for chamber kilns N 200 (H) and N 300 (H)



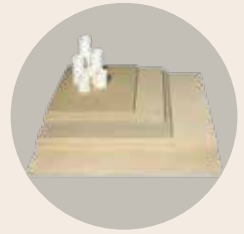
Stainless steel exhaust hood



Observation hole in the kiln door, 15 mm diameter



Kiln furniture



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

Rosa Wiland Holmes,
rosawilandholmes.com

Chamber Kilns up to 2372°F heated from five sides

Cone 10
firing

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 standards. Our chamber kilns N 200 to N 440, heated from five sides, have a maximum firing temperature of 2372 °F/Cone 10 and are the creative companion for Arts & 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
- Thermocouple type S
- SiC shelves to protect the floor heating and provide a level setting surface
- Frame
- Door cover made from structured stainless steel
- Motor-driven exhaust air flap in the middle of the kiln roof for optimum ventilation of the kiln chamber for model N 440

Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 38

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 23



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*	Inner dimensions in inch			Volume in cu ft	Outer dimensions ² in inch			Weight in lbs	Volts	Phase	Connected load kW	Amps ³	Amps breaker	NEMA Plug
	°F	w	d	h		W	D	H ¹							
N 200	2372	18.5	20.9	30.7	7.06	46.7	44.5	69.3	838	208	3/PE	15.2	42.7	60	fixed connection
													37.0	50	fixed connection
N 300	2372	21.7	27.6	30.7	10.59	49.8	51.2	69.3	992	208	3/PE	20.2	56.6	80	fixed connection
													49.1	80	fixed connection
N 440	2372	23.6	29.5	39.4	15.53	53.2	55.5	72.0	1808	208	3/PE	30.2	84.4	110	fixed connection
													73.1	100	fixed connection

¹Base included

²External dimensions vary when kiln is equipped with additional equipment. Dimensions on request

³Amps vary when kiln is equipped with additional equipment

^{*}To fire cone 10

Chamber Kilns up to 2444 °F heated from five sides

Cone 13
firing

Our chamber kilns in the N...H range have a maximum firing temperature of 2444 °F/Cone 13. 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 24

Controller

- Controller with touch operation AC590 incl. cone firing assistant, controls description see page 38

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

Additional
equipment
see page 23

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

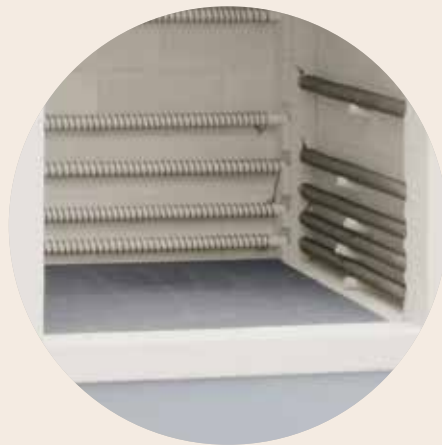
Will Martin,
williamjohnmartin.com



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*	Inner dimensions in inch			Volume in cu ft	Outer dimensions ² in inch			Weight in lbs	Volts	Phase	Connected load kW	Amps ³	Amps breaker	NEMA Plug
	°F	w	d	h		W	D	H ¹							
N 200/H	2444	19.7	20.9	28.3	7.06	49,4	45.3	67.0	1080	208	3/PE	20.2	56.6	80	fixed connection
										240	3/PE		49.1	80	fixed connection
N 300/H	2444	21.7	27.6	30.7	10.59	51,4	52.0	69.3	1191	208	3/PE	27.2	76.1	100	fixed connection
										240	3/PE		65.9	100	fixed connection
N 440/H	2444	23.6	29.5	39.4	15.53	53.2	55.5	72.0	1984	208	3/PE	40.2	112.1	150	fixed connection
										240	3/PE		97.2	125	fixed connection

¹Base included

²External dimensions vary when kiln is equipped with additional equipment. Dimensions on request

³Amps vary when kiln is equipped with additional equipment

⁴To fire cone 13

Standard Equipment of Chamber Kilns

Function	N 200 – N 300/H	N 440 – N 440/H
Catalog page	22 - 28	22 - 28
Certified to UL standard 499 and CSA standard C22.2#221	●	●
Multi-layer insulation with light-weight refractory bricks	●	●
Exclusive use of insulation materials without categorization according to EC Regulation No 1272/2008 (CLP). This explicitly means that alumino silicate wool, also known as “refractory ceramic fiber” (RCF), which is classified and possibly carcinogenic, is not used.	●	●
Rugged, self-supporting, vaulted arch construction	●	●
Door with durable seal, precisely ground by hand	●	●
Dual shell housing, galvanized steel side panels	●	●
Protected door contact switch	●	●
Solid state relays ensure low-noise heater operation	●	●
Manual air inlet	●	●
Motorized air inlet flap closes automatically after residual drying	○	○
Infinitely adjustable fresh-air flap	*	●
Scope of delivery includes an option for connecting an exhaust air pipe (3.15 inch/80 mm diameter)	●	*
Motorized exhaust air flap	○	●
Five-sided heating on support tubes	●	●
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





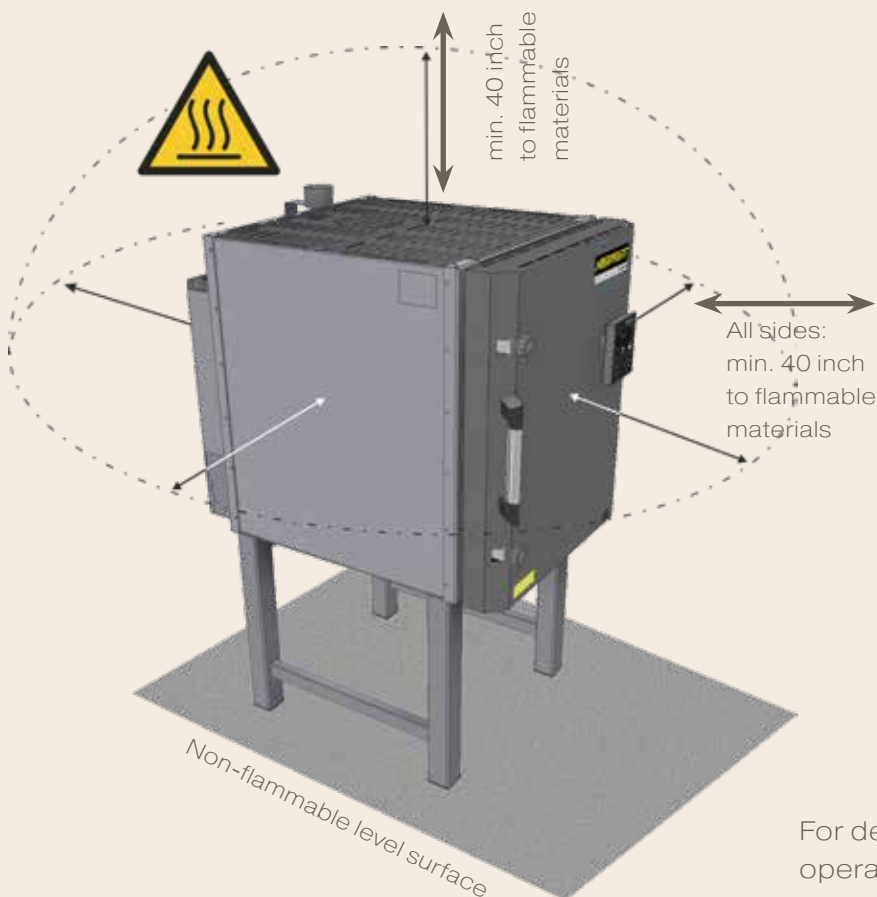
Installation and Exhaust Air System



Installation

When the kiln is being installed, it is important that there is a safety gap of 40 inch between the kiln and flammable materials on all sides and 40 inch to the ceiling. If the ceiling is lower, heat-resistant insulation must be used for protection.

If non-flammable materials are used for insulation the minimum distance between the kiln may be reduced to 8 inch at the sides. The kiln must be placed on a non-flammable surface (fire safety class A DIN 4102 – Example: concrete, tiles, glass, aluminum or steel). The floor must be level so that the kiln can stand upright. Kiln and switchgear are not designed to be used outdoors.



Safe working

For detailed information see our operating instruction:



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.

A 3.15 inch (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.

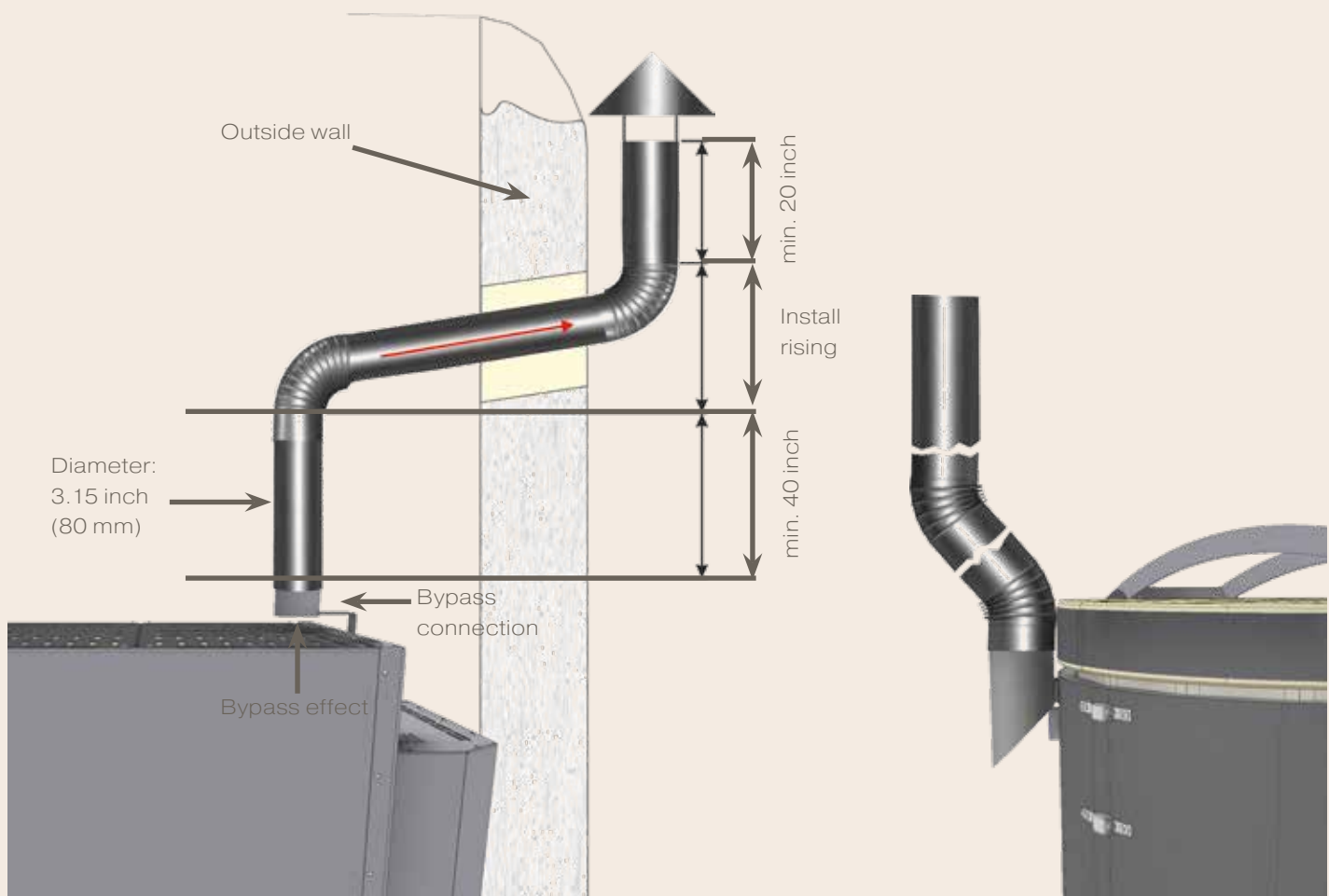
A maximum exhaust gas temperature of approx. 392 °F can be assumed for the piping system. There is a risk of burning at the bypass connection and the piping. The wall duct must be made from heatproof material. We recommend that a local ventilation company dimensions the exhaust gas piping.

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.

With our optimised insulation concept and the precisely coordinated bypass system, no additional ventilation system is required to achieve excellent temperature uniformity.

The manual air inlet damper allows fresh air flow into the kiln, so that the residual moisture in the goods flows out of the kiln interior via the bypass effect through the exhaust air connection on the side of the kiln.

From 1112 °F, this can be closed for perfect firing results with outstanding temperature uniformity.



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 CO₂ emissions by 777 tn. sh. 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 Nabetherm Group. When developing controllers, our focus is on ease of use. The user can choose between 24 languages. From a technical point of view, it 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). From the simple controller with an adjustable temperature to the control unit with freely configurable control parameters, stored programs and PID microprocessor control with self-diagnosis system, we have a solution to meet your requirements.

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



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



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



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



MyNabetherm 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



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



Nabertherm Controller AC590

**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.



Our controller AC590 impresses with its unique scope of performance and intuitive operation. In combination with the free "MyNabertherm" smartphone app, monitoring your kiln is even easier and more powerful than ever before. The operation

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

Samet can Alis
sametcanalis.com



and programming takes place via a high-contrast, large touch panel, which shows exactly the information that is relevant at the moment.

Standard equipment

- Transparent, 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 kiln families
- Can be parameterized for different firings
- "Solar Mode" for utilizing electricity from photovoltaic systems with and without battery
- Delayed start possible

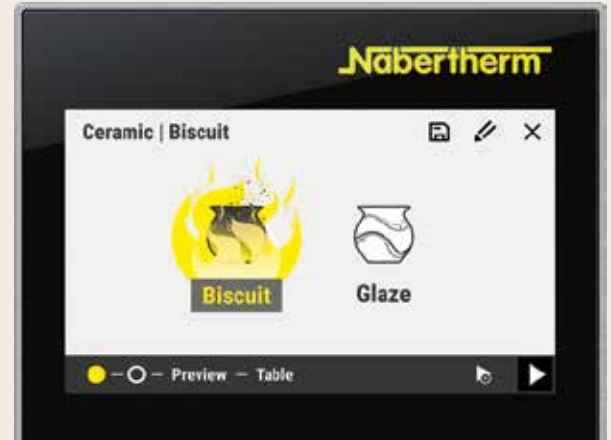
Cone-Firing Assistant "Conny"

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, you choose whether you want to fire ceramics or fuse glass.



Next you select the firing mode.



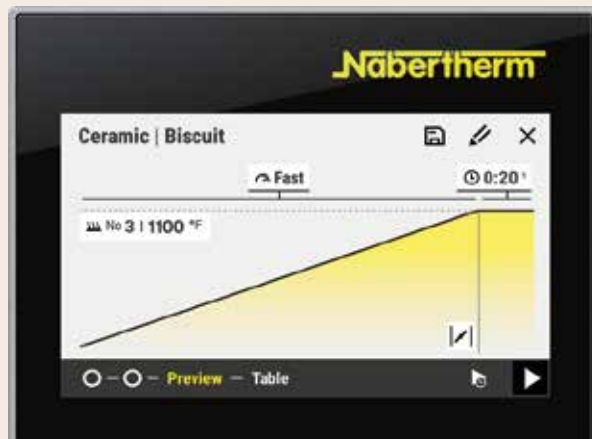
Thirdly, you select an optional preheating time and the correct cone no.



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 (50 programs with 40 segments each)

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

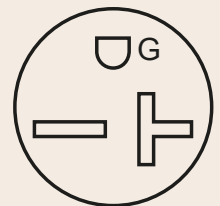


Electrical Overview

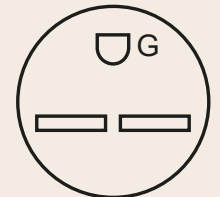
In general, 208 V is common in schools and businesses and 240 V is common in residential areas. Please check, which power requirement of our kilns fits to the available power in your kiln room. We recommend to contact your local electrician to determine what voltage you have and amperage limitations you may have at your building.

Model	Volts	Phase	Connected load kW	Amps ¹	Amps breaker	Copper Wire Size	NEMA Plug
Top 60	208	2/PE	3.7	17.6	30	10	6-30
	240	2/PE		15.2	20	12	6-20
Top 160	208	2/PE	9.1	43.6	60	4	fixed connection
	240	2/PE		37.7	50	8	6-50
	208	3/PE		25.3	50	8	15-50
	240	3/PE		21.9	50	8	15-50
Top 190	208	2/PE	10.0	47.9	60	6	fixed connection
	240	2/PE		41.5	60	6	fixed connection
	208	3/PE		27.8	50	8	15-50
	240	3/PE		24.1	50	8	15-50
Top 220	208	2/PE	15.1	72.4	100	3	fixed connection
	240	2/PE		62.7	80	4	fixed connection
	208	3/PE		41.9	60	6	fixed connection
	240	3/PE		36.3	50	8	15-50
Top 60/R	208	2/PE	5.6	26.7	50	8	6-50
	240	2/PE		23.2	30	10	6-30
	208	3/PE		26.7	50	8	15-30
	240	3/PE		23.2	30	10	15-30
Top 190/R	208	2/PE	13.6	65.2	100	3	fixed connection
	240	2/PE		56.5	80	4	fixed connection
	208	3/PE		37.7	50	8	15-50
	240	3/PE		32.7	50	8	15-50
N 200	208	3/PE	15.2	42.7	60	6	fixed connection
	240	3/PE		37.0	50	8	fixed connection
N 300	208	3/PE	20.2	56.6	80	4	fixed connection
	240	3/PE		49.1	80	4	fixed connection
N 440	208	3/PE	30.2	84.4	110	2	fixed connection
	240	3/PE		73.1	100	3	fixed connection
N 200/H	208	3/PE	20.2	56.6	80	4	fixed connection
	240	3/PE		49.1	80	4	fixed connection
N 300/H	208	3/PE	27.2	76.1	100	3	fixed connection
	240	3/PE		65.9	100	3	fixed connection
N 440/H	208	3/PE	40.2	112.1	150	1/0	fixed connection
	240	3/PE		97.2	125	1	fixed connection

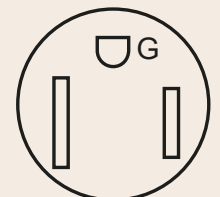
Overview receptacle



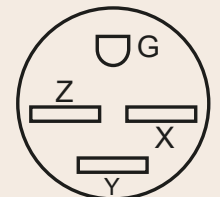
6-20R



6-30R



6-50R



15-30R



15-50R

¹Amps vary when kiln is equipped with additional equipment

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 kiln 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



Convenient monitoring of one or more Nabertherm kilns simultaneously



Display of program progress for each kiln



Easy to contact

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!



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 the data recorded which is 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.

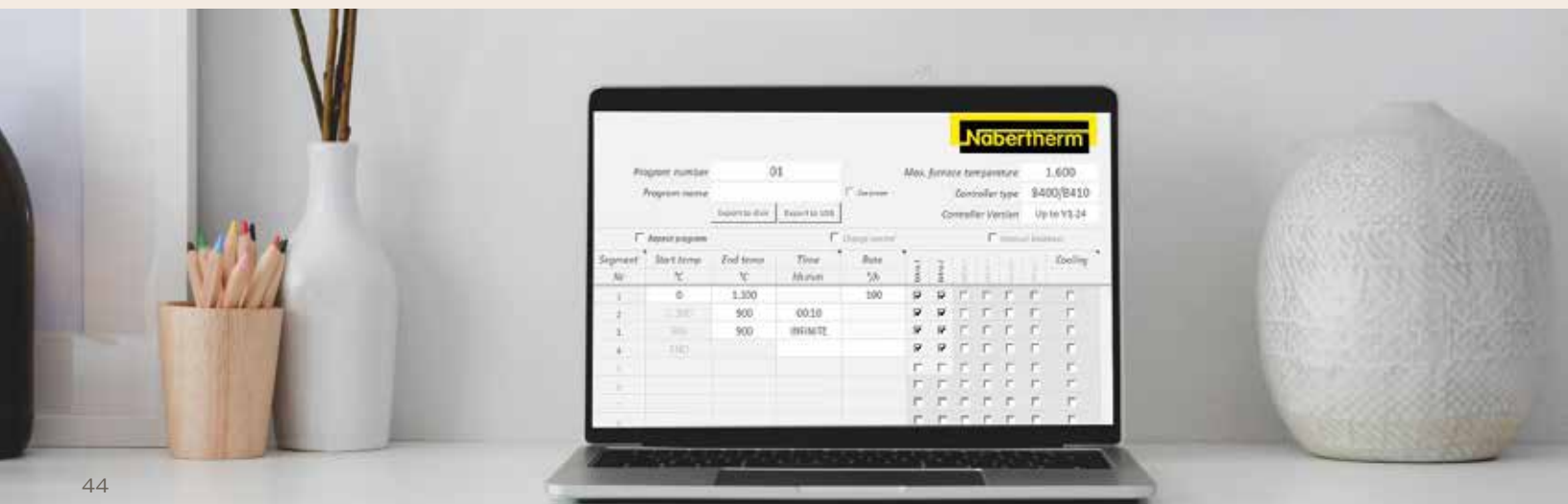
Visualization with NTGraph for MS Windows™ for single-zone controlled kilns

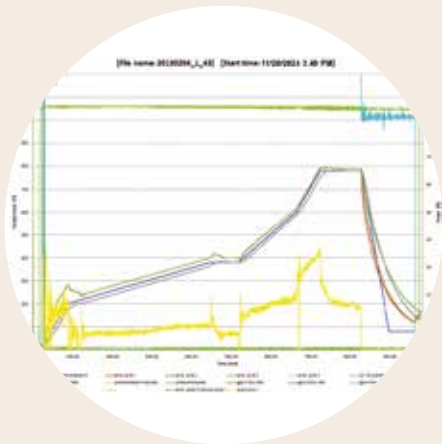
The firing data from NTLog can be visualized either using the customer's own spreadsheet program (e.g. Excel™ for MS Windows™) or NTGraph for MS Windows™ (Freeware). With NTGraph Nabertherm provides for an additional user-friendly tool free of charge for the visualization of the data generated

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).





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:ss)	Rate (%/h)
1	0	1300		100
2	1300	900	00:10	
3	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 kiln 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 kiln construction!

We work closely with our qualified dealers. Not only do they sell our products in their territories, but they are also your first point of contact for spare parts and service enquiries. By working closely with our distributors, we ensure that you as a customer get the parts you need quickly and efficiently.

Our distributors are specially trained and have the necessary expertise to assist you and ensure the best possible local support. We are proud to be able to rely on such a well-connected and qualified dealer network to provide you with the best possible service.

Your needs are our top priority!

- Very fast spare parts supply, many standard spare parts in stock
- International service network with long-term partners
- Extremely competent service team for fast help on the phone in the USA

Ceramics Creates Passion.
Trust in Nabertherm.



“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

contact@nabertherm.com
+1 302-322-3637

Customer service

contact@nabertherm.com
+1 302-322-3637

Find a dealer next to you:

nabertherm.com/en/
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