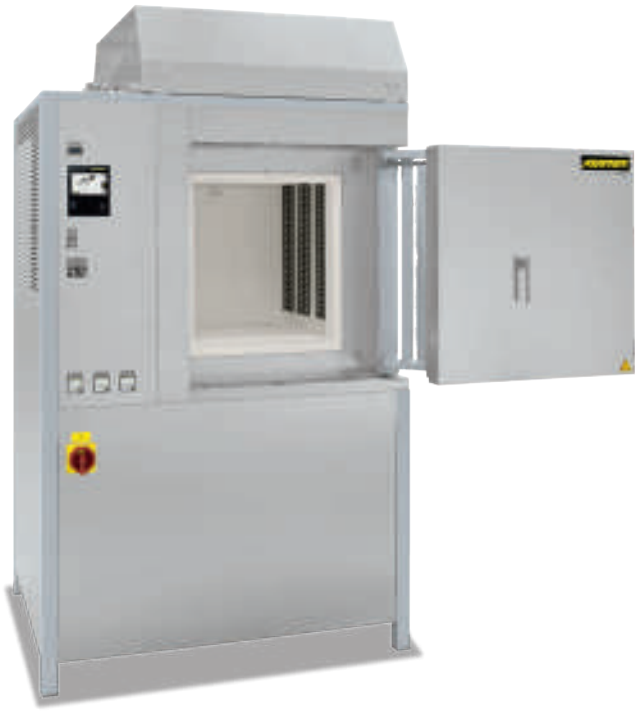
High-Temperature Furnaces with SiC Rod Heating and Fiber Insulation up to 1550 °C

The high-temperature furnaces HTC 16/16 - HTC 450/16 are heated by vertically hung SiC rods, which makes them especially suitable for sintering processes up to a maximum operating temperature of 1500 °C. For some processes, e. g. for sintering zirconium oxide, the reduction of interactivity between the charge and the SiC rods, these models are more suitable than the alternatives heated with molybdenum disilicide elements. The basic construction of these furnaces make them comparable with the already familiar models in the HT product line and they can be upgraded with the same additional equipment.



High-temperature furnace HTC 160/16

Standard Equipment

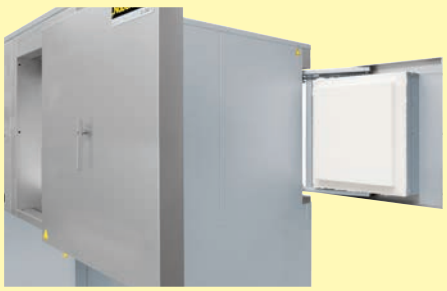
- Tmax 1550 °C
- Recommended maximum working temperature approx. 50 °C below Tmax of the furnace. Higher working temperatures will increase wear and tear.
- Heating from both sides via vertically mounted SiC rods
- High-quality fiber insulation backed by special insulation
- Long-life roof insulation with special suspension
- Temperature uniformity at 1450 °C up to +/– 6 °C according to DIN 17052-1 see page 77
- Chain-guided parallel swivel door for precise opening and closing of the door
- Two-door design (front/back) for high-temperature furnaces from HTC 276/.. up
- Labyrinth sealing ensures the least possible temperature loss in the door area
- Reinforced floor as protection for bottom insulation (distributed load 5 kg/dm²)
- Vapor vent in the furnace roof with motorized exhaust air flap, controlled via the extra function of the controller
- Stainless steel exhaust hood as interface to customer's exhaust system
- Controller with touch operation P570 (50 programs with each 40 segments), controls description see page 84

Additional Equipment like HT models see page 66

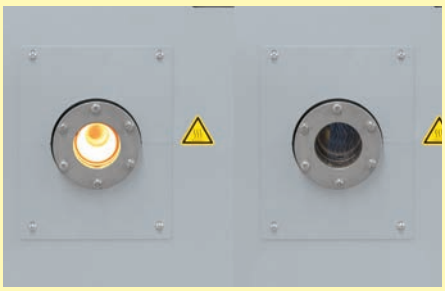
Model	Tmax	Inner dimensions in mm			Volume	Outer dimensions[1] in mm			Heating Power	Connected	Electrical	Weight
	in°C	w	d	h	in l	W	D	H	in kW	load[3] in kW	connection*	in kg
HTC 16/16	1550	200	300	260	16	820	690	1860	12.0	16.5	3-phase[2]	220
HTC 40/16	1550	300	350	350	40	1010	800	1990	12.0	16.5	3-phase	420
HTC 64/16	1550	400	400	400	64	1140	890	2040	18.0	41.5	3-phase	660
HTC 128/16	1550	400	800	400	128	1140	1280	2040	26.0	61.0	3-phase	550
HTC 160/16	1550	500	550	550	160	1250	1040	2260	21.0	40.0	3-phase	535
HTC 276/16	1550	500	1000	550	276	1340	1600	2290	36.0	73.0	3-phase	1300
HTC 450/16	1550	500	1150	780	450	1380	1820	2570	64.0	118.0	3-phase	1450

[1]External dimensions vary when furnace is equipped with additional equipment. Dimensions on request.
*Please see page 84 for more information about supply voltage
[2]Heating only between two phases
[3]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.

Vertically mounted SiC rods and optional perforated air inlet tubes of the debinding system in a high-temperature furnace



Two-door design for high-temperature furnaces > HT 276/..



Cooled inspection glass made out of saphire glass (left at working temperature, right at room temperature)