

Annealing, Hardening and Brazing Furnaces



N 7/H as table-top model



N 41/H

N 7/H - N 87/H

To withstand harsh use in the laboratory, e.g. when heat-treating metals, robust insulation with light refractory bricks is necessary. The N 7/H - N 87/H models are a perfect fit to solve this problem. The furnaces can be extended with a variety of accessories, like annealing boxes for operation under protective gas, roller guides, or a cooling station with a quenching bath. Even high-performance applications like the annealing of titanium in medical applications can be implemented without the use of expensive and complicated annealing systems.



Working with protective gas boxes for a protective gas atmosphere using a charging cart

- Tmax 1280 °C
- Three-sided heating from both sides and the bottom
- Heating elements on support tubes ensure free heat radiation and a long service life
- Bottom heating protected by heat-resistant SiC plate
- Multi-layer insulation with high-quality lightweight refractory bricks in the furnace chamber
- Exhaust opening in the side of the furnace, or on back wall of furnace in the N 31/H models and higher
- Models N 7/H - N 17/HR are designed as tabletop models
- Stand included with model N 31/H and up
- Parallel swinging door which opens downward, or upward upon request
- Controls description see page 60

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions in mm			Connected load kW	Electrical connection*	Weight in kg	Minutes to Tmax ²
		w	d	h		W	D	H				
N 7/H	1280	250	250	120	7	720	640	510	3.0	1-phase	60	180
N 11/H	1280	250	350	140	11	720	740	510	3.6	1-phase	70	180
N 11/HR	1280	250	350	140	11	720	740	510	5.5	3-phase ¹	70	120
N 17/HR	1280	250	500	140	17	720	890	510	6.4	3-phase ¹	90	120
N 31/H	1280	350	350	250	31	840	1010	1320	15.0	3-phase	210	105
N 41/H	1280	350	500	250	41	840	1160	1320	15.0	3-phase	260	120
N 61/H	1280	350	750	250	61	840	1410	1320	20.0	3-phase	400	120
N 87/H	1280	350	1000	250	87	840	1660	1320	25.0	3-phase	480	120

¹Heating only between two phases

²If connected at 230 V 1/N/PE resp. 400 V 3/N/PE

*Please see page 60 for more information about supply voltage

Accessories for Hardening and Brazing

Our wide selection of annealing, hardening and brazing furnaces can be extended with a variety of accessories for hardening and brazing to suit your application. The accessories shown below represent only a small fraction of the products available. For further details, please see our separate catalogues for heat-treatment furnaces and hardening accessories.

Hardening and Annealing Boxes

- Hardening and annealing boxes with or without protective gas connectors, up to 1100 °C, also in a tailor-made variant for cold evacuation, for instance for the annealing of small parts and bulk goods

Annealing Tray with Holder

- Annealing tram with alloy bag and holder with protective gas connection for models N 7/H to N 61/H for annealing and hardening under protective gas and quenching in air

Hearth Plates

- Hearth plates for up to 1100 °C for protection of the furnace floor for models N 7/H to N 61/H, edged on three sides

Hardening Tongs

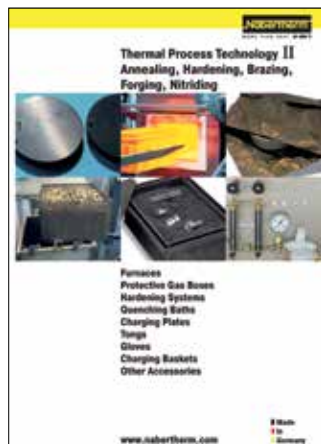
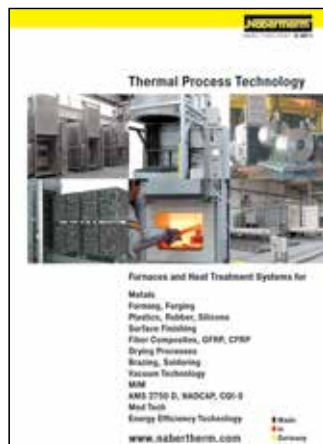
- Hardening tongs in various sizes and forms for use in annealing and hardening

Heat Treating Foil

- Heat treating foil for wrapping of samples for oxidation-free annealing and hardening of steels up to 1200 °C

Gloves

- Heat-resistant gloves to 650 °C or 700 °C for protection of operator during loading see page 12



Please ask for our separate catalogues for hardening furnaces and hardening accessories!