

Air Circulation Chamber Furnaces, Electrically Heated Also for Debinding in Air and under Protective Gases



Forced convection chamber furnace
NA 120/45



Forced convection chamber furnace NA 250/45

Chamber furnaces with air circulation are characterized particularly by their very good temperature uniformity. As a result, they are well suited for processes such as calcination and drying e.g. ceramic materials. The design as a debinding furnace for safe debinding in air or in an inert atmosphere is possible. When used for debinding in air the exhaust gases are diluted by fresh air to reliably prevent an inflammatory atmosphere in the furnace chamber. For debinding processes that have to take place under inert gas, the IDB passive safety concept with a residual oxygen content of max. 3 % is recommended.

- Tmax 450 °C, 650 °C, or 850 °C
- Stainless steel air-baffles in the furnace for optimum air circulation
- Swing door hinged on the right side
- Base frame included in the delivery, NA 15/65 designed as table-top model
- Horizontal air circulation
- Temperature uniformity up to +/- 4 °C according to DIN 17052-1 (model NA 15/65 up to +/- 5 °C) see page 75
- Optimum air distribution enabled by high flow speeds
- One frame sheet and rails for two additional trays included in the scope of delivery (NA 15/65 without frame sheet)
- Defined application within the constraints of the operating instructions
- NTLLog Basic for Nabertherm Controller: Recording of process data with USB-flash drive (NA 30/45 - N 675/85 HA)
- Controls description see page 76

Additional equipment (not for model NA 15/65)

- Optimization of the temperature uniformity up to +/- 3 °C according to DIN 17052-1 see page 75
- Air inlet and exhaust air flaps when used for drying
- Controlled cooling with fan
- Manual lift door (up to model N(A) 120/.. (HA))
- Pneumatic lift door



Air circulation chamber furnace
NA 120/45 DB10 for debinding in air



Air circulation chamber furnace N 250/65 HA IDB with gas supply box for debinding and protective gases

Air circulation chamber furnace N 500/65 HA DB200 for debinding in air with catalytic afterburner system

- air circulation with speed control, recommendable for processes with light or sensitive charge
- Additional frame sheet
- Roller conveyor in furnace chamber for heavy charges
- Designed for Tmax 950 °C
- Debinding packages with safety concept starting from 120 liters volume, see page 6 - 8
- Inlets, measuring frames and thermocouples for TUS measurements charge or comparative measurements
- Process control and documentation via VCD software package or Nabertherm Control Center (NCC) for monitoring, documentation and control see page 76

Model	Tmax °C	Inner dimensions in mm			Volume in l	Outer dimensions in mm			Heating power in kW ²	Electrical connection*	Weight in kg	Heat-up time ⁴		Cool-down time ⁴ from Tmax	
		w	d	h		W	D	H				to Tmax in minutes	to 150 °C in minutes	Flaps ³	Fan cooling ³
NA 30/45	450	290	420	260	30	1040	1290	1385	3.0	1-phase	285	120	120	30	
NA 60/45	450	350	500	350	60	1100	1370	1475	6.0	3-phase	350	120	240	30	
NA 120/45	450	450	600	450	120	1250	1550	1550	9.0	3-phase	460	60	240	30	
NA 250/45	450	600	750	600	250	1350	1650	1725	12.0	3-phase	590	60	120	30	
NA 500/45	450	750	1000	750	500	1550	1900	1820	18.0	3-phase	750	60	240	30	
NA 675/45	450	750	1200	750	675	1550	2100	1820	24.0	3-phase	900	90	270	60	
NA 15/65	650	295	340	170	15	470	790	460	2.8	1-phase	60	40	-	-	
NA 30/65	650	290	420	260	30	870	1290	1385	6.0	3-phase ¹	285	120	270	60	
NA 60/65	650	350	500	350	60	910	1390	1475	9.0	3-phase	350	120	270	60	
NA 120/65	650	450	600	450	120	990	1470	1550	12.0	3-phase	460	60	300	60	
NA 250/65	650	600	750	600	250	1170	1650	1680	20.0	3-phase	590	90	270	60	
NA 500/65	650	750	1000	750	500	1290	1890	1825	27.0	3-phase	750	60	240	60	
NA 675/65	650	750	1200	750	675	1290	2100	1825	27.0	3-phase	900	90	270	90	
N 30/85 HA	850	290	420	260	30	607 + 255	1175	1315	5.5	3-phase ¹	195	180	900	90	
N 60/85 HA	850	350	500	350	60	667 + 255	1250	1400	9.0	3-phase	240	150	900	120	
N 120/85 HA	850	450	600	450	120	767 + 255	1350	1500	13.0	3-phase	310	150	900	120	
N 250/85 HA	850	600	750	600	250	1002 + 255	1636	1860	20.0	3-phase	610	180	900	180	
N 500/85 HA	850	750	1000	750	500	1152 + 255	1886	2010	30.0	3-phase	1030	180	900	210	
N 675/85 HA	850	750	1200	750	675	1152 + 255	2100	2010	30.0	3-phase	1350	210	900	210	

*Please see page 89 for more information about supply voltage

¹Heating only between two phases

³Additional equipment

²Depending on furnace design connected load might be higher

⁴Empty furnace