Sintering Parameters for Nabertherm

This document shows you how to correctly implement the NexxZr sintering programs in your Nabertherm* furnace from Nabertherm GmbH.

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Sintering programs for NexxZr S, NexxZr T and NexxZr+



	Number of units	Duration	Phase	Temperature	Heating / Cooling rate	Temperature	Heating / Cooling rate	Holding time
		h		°C	°C / min	°F	°F / min	min
Standard	1 - 5	~ 3.7	1	20 - 1300	30	68 - 2372	54	30
			2	1300 - 1530	40	2372 - 2786	72	60
			3	1530 - 900	15	2786 - 1652	27	-
			4	900 - 80	20	1652 - 176	36	-
	5 - 10	~ 5.2	1	20 - 1300	30	68 - 2372	54	60
			2	1300 - 1530	40	2372 - 2786	72	120
			3	1530 - 900	15	2786 - 1652	27	-
			4	900 - 80	20	1652 - 176	36	-
Long	1 - 20	~ 10.7	1	20 - 900	10	68 - 1652	18	10
			2	900 - 1530	3	1652 - 2786	5.4	150
			3	1530 - 80	8	2786 - 176	14.4	-
	> 21	~ 11.7	1	20 - 900	10	68 - 1652	18	10
			2	900 - 1530	3	1652 - 2786	5.4	210
			3	1530 - 80	8	2786 - 176	14.4	-
Over night	unlimited	~ 14.3	1	20 - 250	2	68 - 482	3.6	-
			2	250 - 1530	4	482 - 2786	7.2	240
			3	1530 - 80	8	2786 - 176	14.4	-

Standard program, 1-5 units:

Duration: approx. 3 h 56 min
Max. number of units: 5
Suitable for: NexxZr S, NexxZr T and NexxZr+

Segment	Start	End	Time	Rate	Extra 1	Extra 2	Cooling
No	°C	°C	hhh:mm	°/h			
1	0	1300		1800			
2	1300	1300	000:30				
3	1300	1530		2400			
4	1530	1530	001:00				
5	1530	900		900			✓
6	900	80		1200			✓
7	END						

Standard program, 5-10 units:

Duration: approx. 5 h 26 min
Max. number of units: 10
Suitable for: NexxZr S, NexxZr T and NexxZr+

Segment	Start	End	Time	Rate	Extra 1	Extra 2	Cooling
No	°C	°C	hhh:mm	°/h			
1	0	1300		1800			
2	1300	1300	001:00				
3	1300	1530		2400			
4	1530	1530	002:00				
5	1530	900		900			✓
6	900	80		1200			✓
7	END						

Long program, 1-20 units:

Duration: approx. 10 h 54 min
Max. number of units: 20
Suitable for: NexxZr S, NexxZr T and NexxZr+

Segment	Start	End	Time	Rate	Extra 1	Extra 2	Cooling
No	°C	°C	hhh:mm	°/h			
1	0	900		600			
2	900	900	000:10				
3	900	1530		180			
4	1530	1530	002:30				
5	1530	80		480			✓
6	END						

Long program, >21 units:

Duration: approx. 11 h 54 min
Max. number of units: >21
Suitable for: NexxZr S, NexxZr T and NexxZr+

Segment	Start	End	Time	Rate	Extra 1	Extra 2	Cooling
No	°C	°C	hhh:mm	°/h			
1	0	900		600			
2	900	900	000:10				
3	900	1530		180			
4	1530	1530	003:30				
5	1530	80		480			✓
6	END						

Over night program, unlimited:

Duration: approx. 14 h 31 min
Max. number of units: unlimited
Suitable for: NexxZr S, NexxZr T and NexxZr+

Segment	Start	End	Time	Rate	Extra 1	Extra 2	Cooling
No	°C	°C	hhh:mm	°/h			
1	0	250		120			
2	250	1530		240			
3	1530	1530	004:00				
4	1530	80		480			✓
5	END						

Sintering programs for NexxZr T Multi and NexxZr+ Multi



	Number of units	Duration	Phase	Temperature	Heating / Cooling rate	Temperature	Heating / Cooling rate	Holding time
		h		°C	°C / min	°F	°F / min	min
Speed	1-5	~4.8	1	20-1000	60	68-1832	108	10
			2	1000-1530	3	1832-2786	5.4	60
			3	1530-1100	50	2786-2012	90	-
			4	1100-80	60	2012-176	108	-
Long	unlimited	~9.6	1	20-900	10	68-1652	18	30
			2	900-1500	3	1652-2732	5.4	120
			3	1500-900	10	2732-1652	18	-
			4	900-300	8	1652-572	14.4	-

Speed program, 1-5 units:

Duration: approx. 5 h 07 min
Max. number of units: 5
Suitable for: NexxZr T Multi and NexxZr+ Multi

Segment	Start	End	Time	Rate	Extra 1	Extra 2	Cooling
No	°C	°C	hhh:mm	°/h			
1	0	1000		3600			
2	1000	1000	000:10				
3	1000	1530		180			
4	1530	1530	001:00				
5	1530	1100		3000			✓
6	1100	80		3600			✓
7	END						

Long program, unlimited:

Duration: approx. 9 h 48 min
Max. number of units: unlimited
Suitable for: NexxZr T Multi and NexxZr+ Multi

Segment	Start	End	Time	Rate	Extra 1	Extra 2	Cooling
No	°C	°C	hhh:mm	°/h			
1	0	900		600			
2	900	900	000:30				
3	900	1500		180			
4	1500	1500	002:00				
5	1500	900		600			✓
6	900	300		480			✓
7	END						

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