

Thermal processing equipment for laboratories



SNOL

Customized for your hot innovations

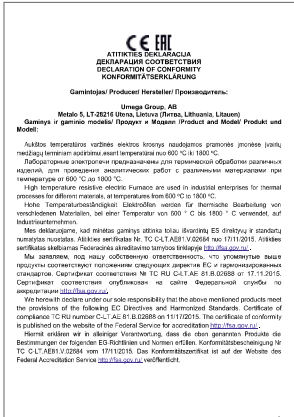
SnoITherm business unit has been producing heat treatment equipment for laboratory and industrial applications since 1960. SnoITherm business unit belongs to Umega Group, AB which is the largest metal processing company in the Baltic States and has more than 700 employees. The company pays particular attention to the product development by using advanced technologies and scientific innovations in order to meet individual user needs. Highly qualified personnel and premium materials result in high quality, reliability, and durability of our manufactured products. Due to the growing SNOL brand awareness, SnoITherm exports 90% of its production and is growing in sales in more than 70 countries, not only in European markets, but also in other regions such as Asia, the Middle East, Africa, North and South America.

Main product lines:

- Laboratory Furnaces
- Laboratory Ovens
- Industrial Furnaces
- Industrial Ovens
- Custom-built Furnaces and Ovens
- Thermal insulation materials
- Storage constructions (Shelving systems and Pallet racks)

SnoITherm advantages:

- Developed according to European standards – SNOL products bear the CE mark and the company’s Quality Management System is certified by Bureau Veritas Quality International in compliance with ISO 9001:2015 / LST EN ISO 9001:2015 standards.
- We are one of the biggest manufacturers in the world, producing more than 4,000 units per year.
- Short lead time – we keep around 200 of our most popular products in stock.
- Durability – some of our customers have continuously used the same SNOL products for more than 50 years.
- If you require, we can manufacture products in compliance with AMS2750E or CQI-9 standards.
- Our team of professional engineers are always ready to offer customized solutions for your hot innovations!



1. High temperature electric furnace

1.1 Muffle furnaces with fiber-insulated chambers

Our high accuracy laboratory electric furnaces with fiber-insulated chambers, are designed by a group of professional engineers and made from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. Fit with a selection of precise digital controllers and certified heating elements to ensure excellent temperature stability. The furnaces include ceramic hearth plates. To eliminate gasses or smoke that are released during thermal processing, a ventilation hole and an exhaust system may be additionally installed in the products. The furnaces are excellent for scientific laboratories, educational institutions, medicine and for industrial use, to be used for hardening, loosening, normalising, and other thermal processing up to temperatures of 1100 °C or 1300 °C.

Basic model

- Ceramic bottom plate
- Control panel is placed in the underpart of the furnace
- Door opens upwards
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Heating elements, embedded in a vacuum-formed fiber, are inside four walls of the chamber on models up to 1100 °C
- Heating elements are exposed on ceramic tubes on two sides of the chamber on models up to 1300 °C
- Low power consumption
- One-piece, high thermal efficiency, vacuum-formed ceramic fiber chamber
- Outside casing – metal sheet, powder painted grey
- 1 year warranty

SNOL 13/1100 LHM01



SNOL 6.7/1300 LSM01



Option

- Additional ceramic bottom plates
- Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder
- Digital timer
- Fan-assisted chimney for air extraction
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Outside casing made from stainless steel
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace
- Additional 1 year warranty

Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Outside dimensions, mm			Power, kW	Voltage, V	Weight, kg	Door opening		
			Width	Depth	Height	Width	Depth	Height				upwards	sideways	downwards
Up to 1100 °C														
SNOL 3/1100 LHM01	3	1100	120	200	105	345	470	430	1.7	230	17	•	○	○
SNOL 8.2/1100 LHM01	8.2	1100	195	310	135	445	660	495	1.8	230	28	•	○	○
SNOL 8.2/1100 LSM01	8.2	1100	195	310	135	440	530	495	1.8	230	28	○	•	○
SNOL 8.2/1100 LZM01	8.2	1100	195	310	135	440	530	495	1.8	230	28	○	○	•
SNOL 13/1100 LHM01	13	1100	220	335	170	505	685	555	1.8	230	38	•	○	○
SNOL 22/1100 LHM01	22	1100	280	500	160	605	855	620	3.0	230	58	•	○	○
SNOL 39/1100 LHM01	39	1100	320	495	230	655	890	740	6.0	400	74	•	○	○
Up to 1300 °C														
SNOL 6.7/1300 LSM01	6.7	1300	145	310	135	445	575	525	2.4	230	35	○	•	○
SNOL 10/1300 LHM01	10	1300	190	335	170	500	710	560	2.4	230	38	•	○	○

1. High temperature electric furnaces

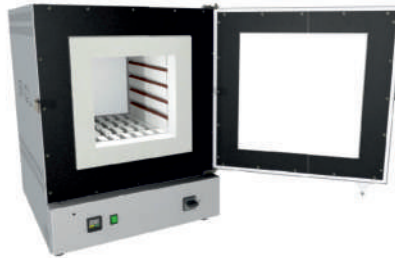
1.2 Chamber furnaces with fiber-insulated chambers

Highly accurate laboratory electric furnaces with chambers made of thermal insulation fiber, designed by a group of professional engineers and made from high quality materials. To eliminate gasses or smoke that are released during thermal processing, a ventilation hole and an exhaust system may be additionally installed in the products. The furnaces are excellent for scientific laboratories, educational institutions, medicine and for industrial use, to be used for hardening, loosening, normalising, and other thermal processing up to temperatures of 1600 °C.

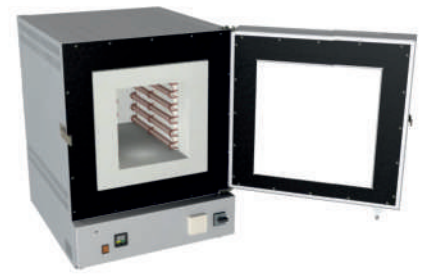
SNOL 30/1100 LSF01



SNOL 40/1200 LSF01



SNOL 30/1300 LSF01



Basic model

- Ceramic bottom plate
- Chamber made of fiber thermal insulation plates
- Control panel is placed in the underpart of the furnace
- Door opens to the right side
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Heating elements in the grooves in three sides of the chamber
- Low power consumption
- Outside casing – metal sheet, powder painted grey
- 1 year warranty

Options

- Additional ceramic bottom plates
- Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder
- Digital timer
- Fan-assisted chimney for air extraction
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace
- Additional 1 year warranty

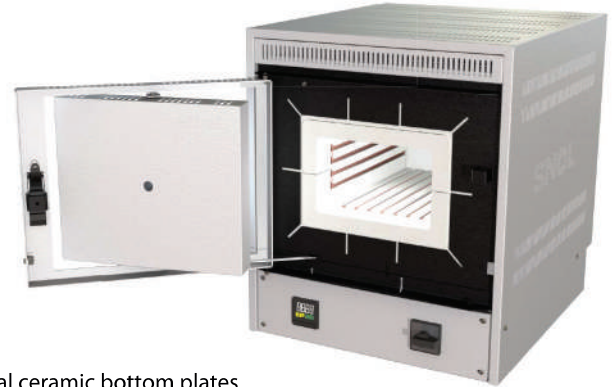
Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Outside dimensions, mm			Power, kW	Voltage, V	Weight, kg
			Width	Depth	Height	Width	Depth	Height			
Up to 1100 °C											
SNOL 30/1100 LSF01	30	1100	300	405	275	640	800	830	3.4	230	96
SNOL 80/1100 LSF01	80	1100	300	405	600	745	800	1255	5.4	400	135
Up to 1200 °C											
SNOL 40/1200 LSF01	40	1200	295	420	295	645	870	835	3.4	230	110
SNOL 45/1200 LSF01	45	1200	290	375	450	715	760	1060	4.6	230	120
Up to 1300 °C											
SNOL 30/1300 LSF01	30	1300	200	440	290	640	870	840	4.6	230	120
Up to 1600 °C											
SNOL 8/1600 LSF01	8	1600	150	300	150	605	580	1395	8.0	400	170

1. High temperature electric furnaces

1.3 Furnaces with ceramic chambers

Highly accurate laboratory electric furnaces with solid ceramic chambers, designed by a group of professional engineers and made from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. The furnaces include ceramic bottom plates. To eliminate gasses or smoke that are released during thermal processing, a ventilation hole and an exhaust system may be additionally installed in the products. The furnaces are excellent for scientific laboratories, educational institutions, medicine and for industrial use, to be used for hardening, loosening, normalising, and other thermal processing up to temperatures of 1300 °C.

SNOL 7.2/1300 LSC01



Basic model

- Ceramic bottom plate
- Control panel is placed in the underpart of the furnace
- Door opens to the right side
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Low power consumption
- Outside casing – metal sheet, powder painted grey
- Partially exposed or enclosed heating elements in four sides around a chamber
- Solid ceramic chamber
- 1 year warranty

Options

- Additional ceramic bottom plates
- Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder
- Digital timer
- Fan-assisted chimney for air extraction
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace
- Additional 1 year warranty

Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Overall dimensions, mm			Power, kW	Voltage, V	Weight, kg
			Width	Depth	Height	Width	Depth	Height			
Up to 900 °C											
SNOL 4/900 LSC01	4	900	120	295	110	440	555	500	3.7	230	55
SNOL 7.2/900 LSC01	7.2	900	195	295	120	445	590	525	3.3	230	50
SNOL 12/900 LSC01	12	900	215	295	195	640	745	820	4.5	230	120
SNOL 15/900 LSC01	15	900	215	400	195	640	815	820	6.0	400	130
Up to 1100 °C											
SNOL 4/1100 LSC01	4	1100	120	295	110	440	615	500	3.7	230	55
SNOL 7.2/1100 LSC01	7.2	1100	195	295	120	445	590	525	3.3	230	50
SNOL 12/1100 LSC01	12	1100	215	295	195	640	745	820	4.5	230	120
SNOL 15/1100 LSC01	15	1100	215	400	195	640	815	820	6.0	400	130
Up to 1200 °C											
SNOL 4/1200 LSC01	4	1200	120	295	110	440	555	500	3.7	230	55
SNOL 7.2/1200 LSC01	7.2	1200	195	295	120	645	710	705	3.5	230	50
SNOL 12/1200 LSC01	12	1200	215	295	195	640	680	820	4.5	230	120
SNOL 15/1200 LSC01	15	1200	215	400	195	640	680	820	6.0	400	130
Up to 1300 °C											
SNOL 4/1300 LSC01	4	1300	120	295	110	440	555	500	3.7	230	55
SNOL 7.2/1300 LSC01	7.2	1300	195	295	120	645	710	705	3.5	230	50
SNOL 12/1300 LSC01	12	1300	215	295	195	640	680	820	4.5	230	120
SNOL 15/1300 LSC01	15	1300	215	400	195	640	680	820	6.0	400	130

2. Other thermal processing equipment

2.1 Ashing furnaces

Our ashing furnaces are designed by a group of professional engineers and made from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. Fan-assisted chimney permits to eliminate smokes from the chamber during the process. Ashing process is possible with several types of furnaces: muffle furnaces, fiber-insulated chamber furnaces and ceramic chamber furnaces. This range of furnaces is suitable for ashing and burn off processes in temperatures of 900-1300 °C.



Basic model

- Chamber made of vacuum formed ceramic fiber / fiber thermal insulation plates / solid ceramic
- Continuous air change in the chamber
- Control panel is placed in the underpart of the furnace
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fan-assisted chimney for air extraction
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Low power consumption
- Outside casing – metal sheet, powder painted grey
- 1 year warranty

Options

- Additional ceramic bottom plates
- Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder
- Digital timer
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace
- Additional 1 year warranty

Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Outside dimensions, mm			Power, kW	Voltage, V	Weight, kg
			Width	Depth	Height	Width	Depth	Height			
Up to 900 °C											
SNOL 4/900 LSC21	4	900	120	295	110	440	605	500	3.7	230	55
SNOL 7.2/900 LSC21	7.2	900	195	295	120	445	640	525	3.3	230	50
SNOL 12/900 LSC21	12	900	215	295	195	640	795	820	4.5	230	120
SNOL 15/900 LSC21	15	900	215	400	195	640	865	820	6.0	400	130
Up to 1100 °C											
SNOL 3/1100 LHM21	3	1100	120	200	105	345	520	430	1.7	230	17
SNOL 4/1100 LSC21	4	1100	120	295	110	440	605	500	3.7	230	41
SNOL 7.2/1100 LSC21	7.2	1100	195	295	120	445	640	525	3.3	230	50
SNOL 8.2/1100 LHM21	8.2	1100	195	310	135	445	710	495	1.8	230	28
SNOL 8.2/1100 LSM21	8.2	1100	195	310	135	440	580	495	1.8	230	28
SNOL 12/1100 LSC21	12	1100	215	295	195	640	805	820	4.5	230	134
SNOL 13/1100 LHM21	13	1100	220	335	170	505	735	555	1.8	230	38
SNOL 15/1100 LSC21	15	1100	215	295	195	640	865	820	6.0	400	130
SNOL 22/1100 LHM21	22	1100	280	500	160	605	905	620	3.0	230	59
SNOL 30/1100 LSF21	30	1100	300	405	275	645	920	835	3.4	230	96
SNOL 39/1100 LHM21	39	1100	320	495	230	655	940	740	6.0	400	75
Up to 1200 °C											
SNOL 4/1200 LSC21	4	1200	120	295	110	440	605	500	3.7	230	55
SNOL 7.2/1200 LSC21	7.2	1200	195	295	120	645	760	705	3.5	230	50
SNOL 12/1200 LSC21	12	1300	215	295	195	640	740	820	4.5	230	120
SNOL 15/1200 LSC21	15	1300	215	400	195	640	865	820	6.0	400	130
Up to 1300 °C											
SNOL 4/1300 LSC21	4	1300	120	295	110	440	605	500	3.7	230	55
SNOL 6.7/1300 LSM21	6.7	1300	145	310	135	445	625	525	2.4	230	35
SNOL 7.2/1300 LSC21	7.2	1300	195	295	120	645	760	705	3.5	230	50
SNOL 12/1300 LSC21	12	1300	215	295	195	640	765	820	4.5	230	120
SNOL 15/1300 LSC21	15	1300	215	400	195	640	865	820	6.0	400	130
SNOL 30/1300 LSF21	30	1300	200	425	290	645	920	835	4.6	230	120

2. Other thermal processing equipment

2.2 Tube furnaces

Our high temperature horizontal tube furnaces designed by professional engineers and made from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. The furnaces are excellent for using in scientific laboratories, educational institutions, medicine and industry for thermal processing up to a temperature of 1250 °C.

SNOL 0.7/1250 LXC01



Basic model

- Ceramic tube chamber
- Control panel is placed in the underpart of the furnace
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Low power consumption
- Outside casing – metal sheet, powder painted grey
- 1 year warranty

Options

- Additional ceramic bottom plates
- Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder
- Digital timer
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace
- Additional 1 year warranty

Model	Vol., l	Tmax, °C	Chamber dimensions, mm		Overall dimensions, mm			Power, kW	Voltage, V	Weight, kg
			Diameter	Depth	Width	Depth	Height			
SNOL 0.25/1250	0.25	1250	Ø 35	200	675	545	565	3.7	230	38
SNOL 0.5/1250	0.5	1250	Ø 50	200	675	545	565	3.7	230	38
SNOL 0.7/1250	0.7	1250	Ø 70	200	675	545	565	3.7	230	38

2.3 Weighing furnaces

Our SNOL 13/1100 LED is designed for combustion loss determination with the assistance of added balances, which weigh the materials before, during, and after the process. This could also inform about the completion of the process – as soon as the weight ceases to decrease. It is used in a variety of technical processes; you no longer need to open the furnace and take out the contents in order to find out the status of materials like, for example, sediment, sludge, soil, waste, or inorganic materials such as cement, lime, calcinated bauxite, and refractories.

SNOL 13/1100 LED



Basic model

- Ceramic bottom plate mounted to a ceramic tube
- Control panel is placed in the underpart of the furnace
- Door opens upwards
- Door safety interlock switch
- Equipped with non-programmable controller Omron E5CC
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Heating elements, embedded in a vacuum-formed fiber, are inside four walls of the chamber
- Low power consumption
- One-piece, high thermal efficiency, vacuum-formed ceramic fiber chamber
- Outside casing – metal sheet, powder painted grey
- 1 year warranty

Options

- Additional ceramic bottom plates
- Balances
- Buzzer
- Calibration of temperature measurement system
- Data communication/USB
- Data recorder
- Digital timer
- Fan-assisted chimney for air extraction
- Gas box up to 1100 °C
- Metal tray
- OTP (over temperature protection)
- Process observation window (ø 35 mm) up to 1100 °C
- Protective gas injection system (nitrogen or argon)
- Table for supporting the furnace
- Additional 1 year warranty

Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Outside dimensions mm			Power, kW	Voltage, V	Weight, kg
			Width	Depth	Height	Width	Depth	Height			
SNOL 13/1100 LED	13	1100	220	335	170	500	690	877	1.8	230	55

2. Other thermal processing equipment

2.4 Shaft furnaces

Our top-loading (shaft) low and high temperature electric laboratory furnaces are designed by professional engineers and made from high quality materials, which are manufactured in our factory, such as heavy-duty metal parts and thermal insulation materials. The furnaces are excellent for drying, hardening, preliminary heating, loosening, normalising and other thermal processes of up to 900 °C, which is mostly used in scientific laboratories, educational institutions, medicine and industry.

Basic model

- Solid ceramic chamber or made from stainless steel
- Enclosed heating elements
- Door opens from the top
- Equipped with non-programmable controller Omron E5CC
- Ceramic bottom plate
- Low power consumption
- Fast heating time due to low thermal mass construction
- Good stability and uniformity
- Outside casing – metal sheet, powder painted grey
- 1 year warranty

Options

- Reinforced bottom
- Additional ceramic bottom plates
- Buzzer
- Digital timer
- OTP (over temperature protection)
- Data recorder
- Data communication/USB
- Calibration of temperature measurement system
- Table for supporting the furnace
- Additional 1 year warranty

SNOL 10/900 LXC02



SNOL 75/600 LHN02



Model	Vol., l	Tmax, °C	Chamber dimensions, mm			Outside dimensions, mm			Power, kW	Voltage, V	Weight, kg
			Width	Depth	Height	Width	Depth	Height			
SNOL 10/900 LXC02	10	900	190	210	405	770	850	1010	4.5	230	144
SNOL 75/550 LHN02	75	550	340	390	550	870	660	850	6.0	400	116

4. Control devices

4.1 Temperature controllers

SNOL products are equipped with high-precision digital microprocessor Omron or Eurotherm temperature controllers fitted with self-tuning and manual PID settings. Temperature measurement is supported by thermocouple. The customer can select a basic or programmable temperature controller, which offers up to 32 programming segments (rate of temperature rise or decrease control, maintenance of preset temperature, automatic shutdown). A wide range of devices allows to select the most appropriate controller for your process.

Omron E5CC



Eurotherm 3216



Eurotherm 3504



Omron E5CC-T



Eurotherm 3208



Eurotherm Nanodac



Model	Programmable	Number of programs	Number of steps in a program	Computer port	Control method		Control signal		
					PID	ON/OFF	Type		Numbers of auxiliary outputs
							Relay	Voltage	
Omron E5CC	○	1	2	●	●	●	●	●	3
Omron E5CC-T	●	8	32	●	●	●	●	●	3
Eurotherm 3216	○	1	8	●	●	●	●	●	2
Eurotherm 3208	●	5	8	●	●	●	●	●	3
Eurotherm 3508	●	50	50	●	●	●	●	●	2
Eurotherm 3504	●	50	50	●	●	●	●	●	5
Eurotherm Nanodac	●	100	25	●	●	●	●	●	5
Eurotherm E+PLC100 *	●	-	-	●	●	●	●	●	4

* PID controller, recorder and PLC in one – designed for elaborate control algorithms.

4. Control devices

4.2 Eurotherm data recorders

Eurotherm data recorders are ideal for basic visualisation and recording requirements. They have a full colour display and utilise touch screen technology for clear and intuitive configuration and operation. Also, support of a USB port comes as standard to enable the use of a mouse, keyboard or a bar code scanner. Data can be moved manually or automatically archived to multiple locations: removable media, network servers or the Eurotherm Review database on a PC. These recorders can easily be integrated into a larger system and data files can be transferred across the network.

Main features:

- Advanced data security and archiving
- 5.5", 1/4 VGA, Color touch screen display
- Designed for network and stand alone use
- FTP client and server
- Live, remote data viewing and configuration
- 125ms parallel sampling.



4.3 Computer software SNOL V2.0

SNOL V2.0 is a computer software for data recording, viewing and configuring the temperature controller running your thermal treatment process. The software is designed for Windows operating system. Computer software allows to simply run, review and display charts on thermal process temperatures and other settings.

Main features:

- Up to 128 controllers connection
- Supports up to 4 computer ports
- Control of device parameters and programs via computer
- Live, remote data viewing and configuration
- Graphical representation of the data
- Data export to Microsoft Excel format
- Ability to observe the process in a distance by internet
- Connections RS-232 and RS-485.
- Multiple language entry (ability to install necessary language).



4.4 Timer Galaxy

The main function of the timer is remote start of the furnace. The timer works in real-time. During the operation, the output contact of the timer is operated according to the settings of the dial-switches. However, it is possible to manually override this operation for each channel individually at all times.

Main features:

- Start and stop 24 hour / 7 day oven operation
- Stores up to 20 programs with up to 10 ON and 10 OFF events/day
- Manual 3-way override
- 16 Amp, 277 VAC resistive SPDT output contacts
- Reserve carryover: 3 years (Non-replaceable battery)
- Manual Daylight Time Changeover
- 3 languages option
- Available only with Omron devices.



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